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SIXTY-FIRST ANNUAL REPORT

OF THE

BOARD OF EDUCATION:

TOGETHER WITH THE

SIXTY-FIRST ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD,

1896-1897.

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JANUARY, 1898.

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# STATE BOARD OF EDUCATION.

## 1898.

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### EX OFFICIIS.

HIS EXCELLENCY ROGER WOLCOTT, *Governor.*

HIS HONOR W. MURRAY CRANE, *Lieutenant-Governor.*

### BY APPOINTMENT.

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ELMER H. CAPEN,	. . .	Somerville,	. . .	May 25, 1899.
ELIJAH B. STODDARD,	. . .	Worcester,	. . .	May 25, 1900.
GEORGE H. CONLEY,	. . .	Brookline,	. . .	May 25, 1901.
ALICE FREEMAN PALMER,	. . .	Cambridge,	. . .	May 25, 1902.
JOEL D. MILLER,	. . .	Leominster,	. . .	May 25, 1903.
KATE GANNETT WELLS,	. . .	Boston,	. . .	May 25, 1904.
FRANKLIN CARTER,	. . .	Williamstown,	. . .	May 25, 1905.

### SECRETARY.

FRANK A. HILL,	. . . . .	Cambridge.
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G. T. FLETCHER,	. . . . .	Northampton.
JAMES W. MACDONALD,	. . . . .	Stoneham.

### AGENT FOR THE PROMOTION OF INDUSTRIAL DRAWING.

HENRY T. BAILEY,	. . . . .	North Scituate.
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ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

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## ANNUAL REPORT.

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The Public Statutes provide that the Board of Education “shall annually, on or before the third Wednesday of January, lay before the General Court an annual report containing . . . a detailed report of all the doings of the Board, with such observations upon the condition and efficiency of the system of popular education, and such suggestions in regard to the most practicable means of improving and extending it, as the experience and reflection of the Board may dictate.” In compliance with these provisions, it has been the custom of the Board to submit to the Legislature the reports of the visitors to the several normal schools, the report of the secretary of the Board, a financial statement prepared by its treasurer, a report from each of its agents and an abstract of the returns made to the Board by the school committees of the State. From these various documents may be gathered information of the detailed character called for by the section of the Public Statutes already quoted. In the preparation of this, the sixty-first annual report of the Board of Education, the usual custom has been followed, and it is believed that the succeeding pages constitute a reasonable compliance with the statutory requirements. By way of preface to the detailed statements herewith submitted, the special attention of the Legislature is respectfully invited to two matters of importance.

### NORMAL SCHOOLS.

The Legislature of 1894 provided for the establishment of four normal schools in addition to the number then in existence. The duty of selecting sites and erecting and equipping buildings for these new schools was assigned to the Board of Education. This duty has been completely performed so far as the choice of sites and the erection of buildings are concerned,

while as much has been done in the matter of equipment as the money at the disposal of the Board has allowed. Reference is hereby made to the reports of the several boards of visitors for detailed information as to the opening of these newly established schools.

The statutes provide that the "general management of the several State normal schools shall be vested" in the Board of Education. At present, then, the Board is officially responsible for the well-being of one school of special character, — the Normal Art School, — and for nine other schools whose function is not specialized, but whose office it is to train young men and women for general service as teachers in the public schools of the Commonwealth. The management of the State normal schools constitutes the weightiest responsibility of the Board. Over other schools and school officials of the State the Board has no control. Outside the normal schools it can act only in an advisory capacity, while within them the Legislature has seen fit to confer upon it undivided authority.

Before speaking further of the normal schools in general, the Board desires to express its appreciation of the liberal provisions made by the Legislature for the establishment of the four new schools. Attention must, however, be called to the fact that, even under the most economical administration, the maintenance of these additional schools will of necessity result in a large increase in the annual appropriation asked for by the Board. It is reasonable to expect that the schools located in Lowell, Fitchburg and North Adams will secure the attendance of an adequate number of students. In case of the Hyannis school it may be found advisable to depart somewhat from the policy pursued in the conduct of the other schools. This school must depend, for a time at least, almost wholly for its students upon Barnstable County. In 1895, the entire population of the State numbered 2,500,183. For the year 1895-96 the whole number of students in the normal schools was reported as 1,123. If the former number be used as a dividend and the latter number as a divisor, it appears that, on the average, one normal student is secured for each 2,181 of population. The population of Barnstable County in 1895 was 27,654. According to the ratio just indicated, such population would naturally furnish some 12 or 13 normal students. While it is gratifying to re-

port that the number of students in attendance at Hyannis is some three times as large as might be expected from the above computation, it still seems to the Board that it may prove advisable to administer this school along lines peculiar to itself. If, for instance, the school year at Hyannis were to consist of four terms of twelve weeks each, attendance during any one of these terms to be accepted as a partial completion of the prescribed course of study, it might be possible to attract to the school for a portion of each year a considerable number of persons now engaged in teaching, and unable to relinquish such pursuit for a longer time. It may also be found desirable to make such arrangements that a summer school, open under proper restrictions to teachers from all parts of the State, may be carried on at Hyannis, in connection with the work of the summer quarter suggested above. To carry either or both these possible measures into effect, a special appropriation would be necessary. The State has seen fit to invest a large amount of money in the normal school property at Hyannis. It remains apparently for the Board of Education to secure an adequate return for the investment. The attempt to realize such return may possibly lead to the establishment of well-nigh continuous sessions, and the maintenance of a State summer school. The experience of the Board at Laurel Park during several recent years and at Salem during the past summer leads it to look with favor upon the last-named measure as one likely to yield an abundant return for the expense attending it.

As previously suggested, it appears that far and away the most important duty of the Board of Education consists in its administration of the normal schools. While the Board cannot divest itself of responsibility for the character and the efficiency of its administration of the normal schools, the manner in which it shall execute the duty imposed upon it is a fair subject for consideration. Aside from the governor and lieutenant-governor, the Board of Education consists of eight persons, each of whom is quite fully occupied with his personal affairs. While such persons may find time to consider and decide upon broad questions of general policy, it must be admitted that they cannot be expected to attend in detail to the execution of such policy. Furthermore, if the names of the seventy individuals, more or less, who have

served upon the Board since its establishment, be scanned, it will appear that most of them were appointed, not because of their acquaintance with the details of educational work, but because of their worth as individuals, their eminence in the community, their reputation for broad intelligence and sound judgment, and their readiness to serve the Commonwealth. Without extending the argument, it seems evident that, while the Board of Education must determine the policy to be pursued in the management of the normal schools and must be held responsible for the character of such policy, its actual execution must be entrusted to its executive.

Those sections of the Public Statutes which relate to the duties of the secretary of the Board of Education were chiefly enacted in the year 1837 and in the few years succeeding. For obvious reasons they contain no reference to his duties with relation to normal schools. Meanwhile, times have greatly changed. Many matters of a routine character suggested in the sections of the statutes just referred to can be delegated to subordinates, while the secretary should be free to devote the largest share of his time and energy to the supervision of the normal schools. To this end he should have such clerical assistance as will relieve him of all ordinary office work, and should have, under his direction, a number of agents sufficiently large to respond to the great majority of requests for advice and assistance which may come from the towns and cities of the State. While we may be reluctant to part with the term "Secretary of the Board of Education," endeared by sixty years of association, it should be understood that such official is really the State's superintendent of public instruction. In no way can he so powerfully affect the schools of the Commonwealth as by devoting himself assiduously to the nine normal schools, in which, to a constantly increasing extent, teachers for the public schools are to be trained.

There is a constant liability that so-called normal schools prove to be only academies. To the end that these schools may become and remain what the distinguishing name "normal" indicates they should be, it seems absolutely necessary that they come under the direction of a single mind, capable of guiding them aright. If any justification for the intro-

duction of this topic and the foregoing remarks upon it seems necessary, it may be found in the fact that by a single act of legislation the normal schools have been increased in number from four to nine. The great sum of money invested in the new schools, the large annual expenditure necessary for their maintenance, together with the tremendous influence they may exert or may fail to exert, — all combine to make the present an opportune time for calling attention to the great issues at stake.

#### ATTENDANCE AND TRUANCY.

The Board, by a resolve of the Legislature of 1895, was directed “to investigate the subjects of attendance and truancy in the Commonwealth, with reference to the question whether any, and, if so, what improvements can be made in the provisions and arrangements concerning truants and absentees from school.”

Mr. George A. Walton, an agent of the Board, was charged with the duty of making the required investigation. For this purpose there were selected fifty towns and cities, representing different parts of the State, and different populations, rural, residential, commercial and manufacturing. He was assisted by the other agents of the Board, by school authorities and by persons specially employed for the service. Mr. Charles W. Birtwell, general secretary of the Boston Children's Aid Society, has been associated with Mr. Walton in planning the investigation and in making the several reports to the Legislature. The superintendents of the several institutions having charge of truant children afforded every needed facility for gaining information regarding these institutions.

In the fifty municipalities investigated the number of children of compulsory school age — eight to fourteen years — was 26,968. The number who failed to attend school during the previous year the amount of time required by law was found to be 2,903; of these, 1,380 were absent without satisfactory excuse, 125 being habitual truants and 1,255 being absent by the consent of their custodians, — parents or other persons having the children in charge. At this rate, the corresponding numbers for the entire State would be: habitual truants, 1,229; absentees from what may be termed parental neglect, 13,570.

The results of the investigation were reported to the Legislature of 1896 in a pamphlet of sixty-one pages. In addition to the facts above stated the report showed that the compulsory and truant laws are not well enforced ; that parents who neglect to cause their children to attend school seldom pay the penalty attached to the offence ; that a small minority only of the children who are habitual truants reach the truant schools, and that those who do reach them are often guilty of graver offences before they are committed for truancy. In confirmation of the statement regarding truant children the report cited the small number in the truant schools throughout the State, this being at the time less than 200.\* Some of the causes for the existing laxity in enforcing the laws were enumerated, and certain desired changes in the laws, and in the means for enforcing them, were suggested. The report concluded with the following summary or recapitulation : —

### I.

There is a considerable number of children in the Commonwealth — above 5 per cent., by estimate — that fail, from parental neglect and truancy, to obtain the amount of schooling required by law.

### II.

The legal means for enforcing the laws in regard to compulsory attendance and truancy are inadequate or inoperative in small towns, largely because they depend for their enforcement upon local officers.

### III.

Further provision should be made for : —

1. A more careful enumeration, under the direction of the school committee, of children of all ages between five and fifteen years, inclusive ; and coincident in time with this enumeration, for purposes of comparison, lists should be made of the names of all children in the town or city belonging either to public or private schools.

2. Registers of a prescribed form to be furnished to all private as well as to public schools. These registers to be kept at the schools, and abstracts thereof to be furnished to the Board of Education upon the request of the secretary, as a condition for the attendance of

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\* At the time of the above investigation the truant school for the city of Boston was not ready for occupancy. The old truant school at Deer Island had been abandoned, consequently no truants were committed from Boston during that year. The average number in the old truant school for the previous three years was 93.

children upon such schools being recognized as compliance with the provisions of the State requiring parents and other persons having control of children to cause them to attend school.

3. The use of discharge and transfer cards, to be given to children, with a duplicate to the truant officer, in every instance of a child's discharge from one school to go to another in the same town, or to another town, the provision to extend to children attending private as well as public schools.

4. A careful scrutiny into the age of children applying for age and schooling certificates, with reference to obtaining employment, and full compliance with the requirements of the law regarding such certificates.

5. Securing from appropriate sources the necessary clothing to attend school for all children in need of such provision.

6. Provision for including the conveyance of children to public schools at public expense, in appropriations made for the "support of schools."

7. A change in form of fines to be imposed upon parents who from neglect fail to cause their children to attend school for the time required by law, so as to give the parent an added motive for causing his child to attend school.

8. An extension of the time schools must be kept from 24 to 32 weeks, and of the time of compulsory attendance to coincide with the time schools are required to be kept.

9. Amendment to the compulsory law, by striking out the provision in section 1, chapter 498, Acts of 1894, for an "allowance of two weeks' time for absences not excused by the superintendent of schools or the school committee."

10. Payment of tuition by the State for State wards, in towns giving schooling to non-resident pupils, such towns having a valuation less than \$3,000,000.

11. Amendment of employment laws, to prevent the employment for wages of any child under thirteen years of age at any kind of work during school hours (chapter 508, Acts of 1894).

12. Amendment to the laws so as not to require towns to make by-laws concerning truants and the place of commitment.

13. Presentments by truant officers of parents for non-compliance with the compulsory law under a general rule or vote of the School Board of the town.

14. One or more State school attendance officers, to be employed as agents of the Board of Education in securing attendance of children upon the schools, and having all the powers throughout the State, to be exercised in emergencies now conferred or hereafter to be conferred by law upon local truant officers.

15. A change of the name truant school to the name parental school, for all truant schools.

16. The separation of truants from children known to be guilty of graver offences, and generally the separation of children in truant schools into small families.

17. Indeterminate sentences.

18. Assigning to the Board of Education, or to a special bureau, the conduct and supervision of truant schools, with State support.

19. The removal of the direct tax of \$2 per week upon towns for the support of children while attending a truant school.

20. A truant school or schools for girls separate from the schools for boys.

21. Some minor changes in wording are needed to make more intelligible to school officers the meaning of the laws; for example, the last paragraph of section 17, chapter 508, Acts of 1894, needs recasting, unless it is intended to accept for illiterate minors 20 weeks' attendance upon an evening school in place of 30 weeks in day schools.

#### IV.

The report now presented covers, so far as was practicable up to date, the subjects which the Board was directed to investigate, namely: "School attendance and truancy in the Commonwealth, with special reference to the question whether any, and, if so, what, improvements can be made in the provisions and arrangements concerning truants and absentees from school." It represents the existing conditions of attendance and truancy, and proposes certain necessary changes in the methods and means of dealing with these subjects. How these changes are to be effected remains for further consideration. In this further consideration are involved:—

1. The definite working out of the means already suggested for preventing non-attendance.

2. Modifications in the present system of truant schools, with their partial or entire transfer to the State for support and direction.

3. Provision for the employment by the State Board of Education of one or more State school attendance officers, to be charged with the duty, in conjunction with local officers, of securing full attendance of children during the compulsory period.

4. A reconstruction of the laws relating to school attendance and truant schools.

For the adequate study and treatment, therefore, of the subjects to which our investigation has brought us, especially of the important problems which relate to the truant schools and the necessary means for enforcing the laws, further time is required.



Acting upon this report, the Legislature of 1896 directed the Board to report to the next Legislature a plan for carrying into execution the Board's recommendations. As directed, the Board made their report to the Legislature of 1897; this was in the form of three bills which were proposed for enactment, — a bill in relation to school attendance and truancy, a bill regulating the employment of children at labor, and a bill in relation to neglected children. These bills were drawn by Messrs. Walton and Birtwell. Owing to the importance of the subjects and the advanced stage in the session when the report reached the Legislature, it was not thought wise to enter upon its consideration; hence a resolve was passed further directing the Board to report, in conformity to the resolve of the previous session, to the Legislature of 1898, before the second Wednesday in January.

In the mean time, the bills, as reported to the last Legislature, after having undergone careful revision, were distributed to all the school superintendents, to school committees of towns not having superintendents, to the county commissioners, to all judges of the courts throughout the State and to many other persons, with the request that comments be forwarded to the makers of the report, with reference to a future and final revision. To this request a generous response was made, and, as a result, the bills have undergone a second revision to reach the form in which they are now presented to the Legislature as the final report of the Board upon the subjects of attendance and truancy.

The following is a synopsis of the report : —

ACT I. — First, schools and studies; second, attendance; third, State parental schools and State school attendance officer; fourth, truancy; fifth, school attendance officers of towns and cities; sixth, school records, census and reports; seventh, definitions, repeal, and when to take effect.

ACT II. — To regulate the employment of labor.

ACT III. — Relating to neglected children.

Among the proposed changes or modifications in the present laws the most important are the following : —

By Act I., all towns are required to keep schools for thirty-two weeks; the law at present requires them to be kept six months (twenty-four weeks).

To the permissible studies are added several branches of instruction, all of which are at present pursued to some extent in the schools; these are geometry, one or more foreign languages, the elements of the natural sciences, kindergarten training, manual training, cooking, physical training and civil government.

All towns containing five hundred families are required to provide for a four years' course of instruction in studies necessary to fit for normal schools, technical schools or colleges. This is what is already required of all towns that have four thousand or more inhabitants, and, practically, what is required of all towns that do not maintain high schools.

Under the present law towns of less than four thousand inhabitants, if they maintain high schools, are allowed to provide less extended courses of studies. The proposed law takes away this premium on low-grade high schools. Under the proposed as well as the present law, any town may provide the prescribed instruction by paying for it in the high school of another town or of any city.

The requirement of manual training in cities of twenty thousand or more inhabitants is extended to elementary schools. The law at present prescribes it for high schools only. Provision is made as at present for industrial and mechanical drawing.

Every child is given the right to attend school either where his parent or guardian resides or where he himself resides.

The present law (Acts of 1894, chapter 498, section 4) is, to say the least, difficult of interpretation; it reads: "All children within the Commonwealth may attend the public schools in the place in which they have their legal residence, subject to the regulations prescribed by law."

The age of compulsory attendance, instead of beginning at eight years, is to begin at seven years. The provision for the year of required attendance between fourteen and fifteen in case the schools of the town have any form of manual training, is dropped. It is proposed that unemployed illiterate minors under seventeen years shall attend day or evening schools.

In defence of the proposed changes it may be stated that at present nearly all children begin their schooling at an earlier age even than seven years, and no good reason exists why they

should not be compelled to attend regularly at least a year earlier than is required at present.

There are several reasons for dropping the year between fourteen and fifteen required under the present law in towns having manual training: First, the term "manual training" having as yet no definite meaning, the provision is, with few exceptions, inoperative even where some manual training is given. Secondly, the present law does not require as a condition for the additional year of attendance that manual training shall be provided within a grade reached by the pupil before he is fifteen years old; it may be provided only in the last year of the high school; and yet, on account of this provision, every child in the schools of the town or city will be required to go to school the extra year. Thirdly, the provision itself militates against the introduction of manual training into the schools.

The act does away with the present complicated provisions as to the amount of attendance, and simply prescribes attendance while the schools are in session. It re-enacts present laws as to attendance in a town or city other than that of the residence of the child or the parent or guardian.

It provides that private schools shall keep registers and forward returns the same as public schools.

It re-enacts the present law in regard to the payment of tuition by the State for State wards, but excepts children placed in their own homes. It extends the provisions of the present statutes to include measles in the list of contagious diseases. It re-enacts the present law forbidding exclusion from school on account of race, color or religion.

It omits the requirement of the present law that the teacher shall state to the parent in writing the reason for the exclusion of a child from school, and limits the requirement to the school committee, who alone have the authority to exclude from school.

The proposed act provides for the appointment of a board of trustees of State parental schools, and for the establishment and maintenance of State parental schools. The trustees are authorized to purchase any county truant school for a State parental school. They are made a corporation for holding in trust gifts or bequests. Provision is made for their holding certain meetings and making annual reports. They are to elect a superintendent of each State parental school, who is to

appoint the other officers, with the approval of the trustees. The act provides also that the trustees shall appoint a State school attendance officer, whose power and duties are defined. The State Board of Education and State Board of Lunacy and Charity are to visit and report upon the State parental schools.

The act provides for terminating the powers and duties of county commissioners in relation to truants and truant schools, and provides for the transfer of the inmates of truant schools to the custody of the trustees of the parental schools. It makes officers of county truant schools eligible to appointment within a given period as officers of the State parental schools without civil service examination or enrolment.

The act defines three classes of children, — habitual truants, habitual absentees and habitual school offenders, and provides that they may be committed to the custody of the trustees of the State parental schools on an indeterminate sentence; the maximum period of detention being, for children under thirteen years of age, until the age of fifteen years; and for children thirteen or over, two years. It provides for placing children, convicted of an offence under this law, upon probation under the oversight of truant officers, and for the placing out by the trustees, in families, any children in their custody; it also provides for the parole and discharge of children committed to the custody of the trustees, for revoking the parole, and for the transfer to other institutions of children that persistently violate the reasonable rules and regulations of parental schools.

The act puts a penalty upon parents and guardians for consenting to the unlawful absence from school of children in their custody. It also provides a penalty for harboring a truant or attempting to induce a child unlawfully to absent himself from school, which provision is in accordance with the present law. It re-enacts the present law as to what courts shall have jurisdiction.

Under the act, school committees are required to appoint truant officers; two or more towns or cities, however, may employ the same officer or officers. Provision is made that the tenure of office of present truant officers shall not be affected by the proposed act. The name “truant officer” is changed to “school attendance officer.” The act applies the

civil service rules to school attendance officers in cities of over twenty thousand inhabitants, and defines the duties of such officers.

The act defines the duties of the State Board of Education regarding the school returns and its own annual report. It adds to the present law the duties of prescribing the form of census of children, and requires the sending of registers to private as well as public schools and the sending of blanks for returns as at present. It re-enacts, without material change, the present law relating to school attendance.

It requires, as at present, school committees to take the census of children; the time of taking the census, however, is changed from May to September. The purpose of this change in time is to afford the means of comparing the names on the census list with those on the school registers at the beginning of the school year, which now quite generally falls in the month of September.

School committees are required, as by the present law, to make certain returns to the State Board of Education. The act defines the duties of teachers in connection with the keeping of the school registers, and prescribes the basis for the reckoning of average membership and attendance.

The legislation to be repealed is specified, and the provision in the present law for committing truants to houses of reformation is repealed, and the time when the various provisions of the act are to take effect is indicated.

Act II. brings the laws in regard to the employment of children at labor into conformity with the proposed law in regard to school attendance.

Act III. brings together various present laws in regard to neglected children, and separates these laws from the laws in regard to truancy. It gives courts a somewhat wider discretion as to the commitment of such children to State instead of town or city authorities. It repeals present laws under which neglected children may be committed to truant schools.

From the foregoing pages it appears that the bills to be submitted to the Legislature are the result of long, patient and painstaking study of the subjects of attendance and truancy.

In view of the great importance of these two subjects, and because of a confident belief in the wisdom of the legislation recommended, the Board of Education expresses the hope that these measures may receive the early attention of the Legislature and find favor in its sight.

GEORGE I. ALDRICH,

*for the Board.*

Boston, Dec. 2, 1897.

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REPORTS  
OF THE  
BOARDS OF VISITORS  
OF THE  
NORMAL SCHOOLS.

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# STATE NORMAL SCHOOL, BRIDGEWATER.

ALBERT G. BOYDEN, PRINCIPAL.

## INSTRUCTORS.

ALBERT GARDNER BOYDEN, A.M., Educational Study of Man, including the Study of the Body, the Mind, Science and Art of Teaching, School Organization, School Government, School Laws of Massachusetts and History of Education; ARTHUR CLARKE BOYDEN, A.M., Vice-principal, Natural Science, History and Civil Polity; FRANZ HEINRICH KIRMAYER, Ph.D., Latin, Greek, French, German; WILLIAM DUNHAM JACKSON, Physical Science, Mathematics, English Literature; CHARLES PETER SINNOTT, B.S., Geography, Physiology and Hygiene, Physical Science; HARLAN PAGE SHAW, Chemistry, Mineralogy, Industrial Laboratory; FRANK ELLIS GURNEY, Classics, Bookkeeping, Astronomy; ISABELLA SARA HORNE, Vocal Culture and Reading; CLARA COFFIN PRINCE, Vocal Music, Algebra, Geometry; FANNY AMANDA COMSTOCK, Arithmetic, Rhetoric, Botany; EMILY CURTIS FISHER, Elementary English, Grammar, Geometry; ELIZABETH HELEN PERRY, Drawing; LILLIE EVELINE MERRITT, Assistant in Drawing; BESSIE LOUISE BARNES, Physiology and Hygiene, Physical Training.

Model School: LILLIAN ANDERSON HICKS, Principal; ADELAIDE REED, MARTHA MAY BURNELL, HANNAH ELIZABETH TURNER, NELLIE MABEL BENNETT, MARTHA WILLIAMS ALDEN, MARY LUCINDA WALLACE, SARAH ELLEN PRATT, SARAH WHEATON TURNER, FLORA MAY STUART.

Kindergarten: ANNE MORGAN WELLS, FRANCES PLYMPTON KEYES.

The past year has been a prosperous one in the Bridgewater Normal School in the quality and quantity of the daily work of students and teachers and in the number of those seeking the advantages of its training. Students and teachers have worked with great earnestness and have been thoroughly loyal to the school.

It has always been the purpose of this school to inspire its students with the spirit of the true teacher, to make them lovers of sound learning, earnest seekers for truth, and on the alert to secure the best things in both "the old and the new

education." It is the unanimous testimony of the graduates, after years of experience in teaching, that the training they received at the school has been of invaluable service to them. The strong fraternal bond so noticeable in the graduates of the school is another of the fruits of this training.

The statistics show that the numbers in the entering class, in the enrolment of students and in the graduating class are close upon the highest limits of any preceding year. The average age of the candidates admitted was a little higher than usual. It is an encouraging fact that the quality of the students received is gradually improving, enabling the teachers to secure for their pupils a better and broader preparation for teaching. Placing the normal school alongside the college in its requirements for admission gives it a higher standing in the estimation of the high school graduates, and leads the high schools to ask what they shall do to fit their graduates for admission to the normal school.

The large graduating class in June was above the average in quality, and a large number of its members were engaged to teach before their graduation. The college graduates and teachers receiving certificates from the special courses were quickly secured for good positions.

The number of applicants for examination and the enrolment at the opening of the fifty-eighth year of the school, in September, 1897, are beyond precedent in the history of the school. One hundred and fifty-seven candidates for admission appeared, and one hundred and forty-four were received, nineteen of whom, nine from colleges and ten teachers of experience, entered upon special courses. The number in attendance was two hundred and seventy, crowding the assembly hall, and making it necessary to purchase additional desks and chairs.

Early in the year the Board, by its appointment of Mr. Frank F. Murdock to the principalship of the new State normal school at North Adams, took from this school an efficient instructor who had for twelve years held an honorable position in its faculty. Mr. Charles P. Sinnott of the Milwaukee State Normal School, a graduate of a four years' course of the Bridgewater Normal School and of the Harvard Scientific School, with a successful record in normal school teaching, was appointed to succeed Mr. Murdock. Miss Emily

C. Fisher has returned to her work in the school, after one year of travel and study in Europe and another year in special studies in Radcliffe College.

At the opening of the spring term Miss Alice V. Winslow, teacher of the second grade in the model school, resigned on account of ill health, and Miss Sarah E. Pratt, a teacher of high standing in Somerville, was appointed to this position. The increase of pupils in the seventh grade of the model school made it necessary to add another teacher, and Miss Hannah E. Turner, a successful master's assistant in Taunton, was appointed to this grade.

The model school has a prominent place in the training of the students for their work in the public schools. Its purpose is to exemplify the mode of conducting a good public school, and to train the normal students in observing and teaching children. It occupies nearly one third of the school building, enrolls nearly four hundred pupils, and includes the kindergarten and the nine elementary grades of the public school in the centre of the town. It has twelve teachers, — a principal and a regular teacher for each grade. The students, after careful observation to become acquainted with the children, serve as assistants, take charge of the class for a time, teach classes in different subjects and have practice in departmental teaching. The students are deeply interested in this part of their work and are greatly benefited by this training.

The normal students have a definite course in practical child study, under careful direction, and make reports on their study. Such study includes the school as a whole, the observation of all the details of school work in the different grades, the physical condition of the school, the character of the pupils, their intellectual condition, the home and social life of the community. First the names of the children in the class are learned, and the power to recognize the children acquired; then attention is given to the different sorts of pupils in the school, — those who are leaders, those who prevent good work and discipline in the school, those who fail to do the best for themselves but do not interfere with others, those much above or below the average age of the class, those whose work is much above their classmates, those whose work is very poor, and all others in the class.

Such study also includes the individual child, his relation to his class, his physical condition, his intellectual condition, his moral qualities, his home and social life and his adaptation to special work, aiming in each case to find out the cause of his condition, the effect of that condition, and the remedy for it when it is abnormal; it aims also to discover the habits which the child has formed, noting particularly those things in which he differs from ordinary children, or which are especially characteristic of him.

The students learn the philosophy of their work by finding in the educational study of man the powers active in all men and the conditions and products of their activity, from childhood to maturity.

The appropriation made by the Legislature of 1897 has been expended for the objects for which it was granted. The white plastered walls and ceilings throughout the school building and in Tillinghast Hall have been painted in good colors by L. Haberstroh & Son of Boston, decorators. Hard pine floors have been laid in the rooms on the ladies' side of Normal Hall, single beds and rugs have been supplied to these rooms, many of the rooms in this hall have been repainted and the entire plumbing has been renewed. Iron and plaster partitions have been built across the attic of the school building, for protection in case of fire.

The special need of the school at this time is a suitable hospital for use in case of contagious diseases.

The statistics of the school for the year ending Aug. 31, 1897, are as follows:—

Number of students for the year, 254, — 39 men, 215 women; number in the entering class, 114, — 13 men, 101 women; number of graduates for the year, 90, — 10 men, 80 women; number receiving certificates for special courses, 9.

The whole number of students who have been members of the school is 4,341, — 1,220 men, 3,121 women. The number who have received certificates or diplomas is 2,773, — 797 men, 1,976 women; of whom 232 have graduated from the four years' course, — 123 men, 109 women.

Of the 254 members of the school for this year, Plymouth County sent 46; Bristol, 45; Norfolk, 39; Middlesex, 26; Barnstable, 15; Suffolk, 9; Worcester, 9; Berkshire, 7; Essex, 7; Hampden, 3;

Hampshire, 3; Franklin, 2; Nantucket, 2; Dukes, 1; the State of Maine, 12; New Hampshire, 11; Connecticut, 3; Vermont, 2; Maryland, 2; North Carolina, 2; New York, 1; California, 1; Mexico, 6. Total from Massachusetts, 214, 14 counties and 95 towns being represented; other States and countries, 40.

The distribution of the students for the year was as follows: graduate course, 5; special courses, 11; four years' course, 56,—18 men, 38 women; intermediate course, 16,—8 men, 8 women; two years' course, 166,—9 men, 157 women.

The average age of those admitted during the year was 20 years, 2 months; of the men, 22 years; of the women, 19 years, 11 months.

Of the 114 admitted, 2 came from colleges, 12 from normal and training schools, 90 from high schools, 10 from academies and private schools; of these, 33 had taught.

The occupations of the fathers of those admitted were given as follows: mechanics, 29; farmers, 27; merchants, 21; manufacturers, 4; physicians, 3; superintendents and foremen, 3; bookkeepers and clerks, 3; sea captains, 2; jeweler, 1; druggist, 1; undertaker, 1; printer, 1; railroad conductor, 1; miscellaneous, 9; unknown or not given, 8.

Of the 114 students admitted during the year, Taunton sent 6; Boston and Bridgewater, 5 each; Chelsea, Easton, Fall River, West Bridgewater and Weymouth, 3 each; Adams, Canton, Dighton, Granby, Hingham, Hyde Park, Melrose, New Bedford, Palmer, Provincetown, Rockland and Townsend, 2 each; Abington, Ashfield, Barnstable, Barre, Berkley, Bourne, Bradford, Brockton, Dover, East Bridgewater, Franklin, Hanover, Harvard, Mansfield, Mattapoisett, Middleborough, Nantucket, Needham, Newton, Norfolk, North Andover, Norwell, Norwood, Pembroke, Pepperell, Quincy, Raynham, Sandwich, Scituate, Shirley, Somerville, Stoughton, Upton, Uxbridge, Walpole, Waltham and Ware, 1 each; Maine, 5; New Hampshire, 5; Connecticut, 2; Maryland, 2; Vermont, 1; North Carolina, 1; Mexico, 6.

ALICE FREEMAN PALMER,  
GEORGE I. ALDRICH,

*Board of Visitors.*

## STATE NORMAL SCHOOL, FRAMINGHAM.

MISS ELLEN HYDE, PRINCIPAL.

## INSTRUCTORS.

Miss ELLEN HYDE, Psychology, School Laws of Massachusetts, School Organization and Government; Miss AMELIA DAVIS, Mathematics and Astronomy; Miss SUSAN J. HART, Natural Sciences; Miss M. ELIZABETH HOLBROOK, History and Civil Polity; Miss SARAH E. PRATT, Latin; Miss MARY C. MOORE, English Language and Literature; Miss LILLIAN ORDWAY, Latin and Geography; Miss MARY H. STEVENS, French; Miss JANE E. IRESON, Elocution; Miss HARRIET L. LACEY, Drawing; Miss CARRIE F. SPEAR, Singing; Miss ALMA E. HURD, Gymnastics. Practice School: Miss AUGUSTA BARBER, Principal, Third and Fourth Grades; Miss ELIZABETH MALLOY, First and Second Grades; Miss NELLIE A. DALE, Fifth and Sixth Grades; Miss J. ANGELINE SMITH, Seventh and Eighth Grades; Miss SUSAN M. EMERSON, Ninth Grade and Sloyd; Mrs. HELEN M. BLAKE, Miss INA CUTTING, Kindergarten.

The fifty-eighth year of the school has shown a marked increase in the efficiency of the work done by both teachers and pupils, owing to the more healthful conditions which surround them in the better ventilation, heating and lighting of May Hall. Its beautiful situation and the happy family life of its two boarding-halls also contribute largely to the harmonious activity of the school.

As, however, it still lacks a gymnasium building, certain apparatus has been temporarily placed in one of the large rooms of May Hall, where the young ladies receive regular instruction in gymnastics, twice a week, under the direction of Miss Alma E. Hurd.

We regret to record the resignations of Miss Anna J. Bradley, the able instructor of sloyd since 1892, and of Mr. William S. Tilden, the excellent and kind director of music since 1884.

His place has been taken by Miss Carrie F. Spear, who is also teaching in the town schools. Miss Susan M. Emerson has care of the work in sloyd.

We have long known that a kindergarten was necessary for the proper equipment of the school, especially in relation to its practice department. Still, not until a few months ago were we able through the kindness of the town to realize our hopes. We now have a kindergarten under the charge of Mrs. Helen M. Blake, at the old bank building, close by the normal school, in a room given by the town, which has generously equipped it with suitable furniture, providing also heat, light and janitor's care.

At the other end of school instruction are the Saturday classes for teachers, which offer courses in English literature and Latin, conducted by the principal, Miss Hyde, Miss Mary C. Moore, Miss Lillian Ordway and Miss S. E. Pratt. These courses are free, open to any teachers who desire to study those subjects and the methods of the principal and her faculty in teaching them. Thirty-five teachers have already availed themselves of this opportunity for higher instruction, but the number doubtless would have been larger if the courses had been advertised.

During the year friends have addressed the school as follows : Miss Edith Barnes ; Miss Susan J. Hart ; Mr. and Mrs. Booker T. Washington ; Mr. Henry T. Bailey ; Mr. Charles Malloy ; Mr. Andrew W. Edson ; Rev. Alvin F. Bailey ; Mr. M. Anagnos ; Dr. Edward R. Shaw ; Swami Saradananda ; Mr. Harvey D. Eastman ; Mr. George T. Spring ; Hon. Frank A. Hill ; Mr. John T. Prince and Rev. Edward E. Hale. Mrs. J. Charlton Black and Mrs. Sidney Lanier have given readings.

An especially valuable gift of moths and butterflies was made to the school by Miss Jane E. Ireson, on her return from India. Valuable books have been received from Mrs. Frank Brown of Framingham, and a collection of Alaskan garnets from Mrs. Jane Ireson.

The statistics of the school are as follows :

Number admitted in September, 1896, 37 ; number graduated in June, 1897, 4 years' course, 3 ; 2 years' course, 33 ; 1 year's course, 2 ; total, 38. Whole number of pupils for the year 1896-97, 91.

Average age of those admitted in September, 20 years.

Occupations of parents: Merchants, 14; mechanics, 22; farmers, 21; professions, 15; manufacturers, 3; railroad men, 4; cashier, 1; agents, 3; laborers, 2; miscellaneous 6; total, 91.

Residences of pupils: Massachusetts,—Middlesex County, 40; Worcester County, 11; Norfolk County, 7; Essex County, 5; Berkshire County, 4; Bristol County, 3; Hampshire County, 2; Dukes County, 1; Nantucket County, 1; Suffolk County, 1; total, 75. Other States,—New Hampshire, 4; Connecticut, 4; New York, 2; Pennsylvania, 1; Maine, 1; California, 1; South Carolina, 1; New Jersey, 1; total, 15. Number from Massachusetts and other States, 90; England, 1; total, 91.

KATE GANNETT WELLS,  
GEORGE H. CONLEY,

*Board of Visitors.*



## STATE NORMAL SCHOOL, SALEM.

WALTER P. BECKWITH, PRINCIPAL.

### INSTRUCTORS.

WALTER P. BECKWITH, Ph.D., Principal, Psychology, Pedagogy, School Laws; ELLEN M. DODGE, English Literature and German; HARRIET L. MARTIN, Mathematics; HARRIET D. ALLEN, Reading and School Records; CHARLES E. ADAMS, Physics and Chemistry; JESSIE P. LEAROYD, Botany and French; CHARLES F. WHITNEY, Drawing; GISH GARWOOD, Music; MARY A. COMEY, English Grammar and Library; WILLIAM C. MOORE, S.B., Mineralogy, Geology and Geography; M. ALICE WARREN, Biology, Physiology and Physical Training; FLORENCE M. SNELL, Ph.B., English Literature and Latin.

Model School: HARRIET E. RICHMOND, BERTHA H. DES JARDINS, ADELAIDE A. JACKSON.

Kindergarten: LAURA M. SKINNER, HELEN L. NEWTON.

There have been many important changes during the year, which are briefly summarized:—

(1) The following teachers have closed their service in the school: Caroline J. Cole, Sophia O. Driver, Mary E. Godden, E. Adelaide Towle and Susan L. Wonson. In their places two appointments have been made, as follows: M. Alice Warren and Florence M. Snell.

(2) Much time and study have been devoted to the rearrangement of the courses of study. In the shape in which the regular two years' course is left, the continuation and consideration of the secondary school studies—the sciences, literature, mathematics and the like—are given attention the first half of the time; the review of the grammar school subjects, with a view to teaching them, and the purely professional branches, like psychology and pedagogy, are given to the second year. The junior class just admitted to the school has entered upon its work according to this plan.

The settlement of the problems of the "advanced course" does not seem to be so simple a matter. At present it does not appear to yield returns at all adequate to its cost. Possibly a rearrangement of it from the start would solve the problem, although it might take some time to accomplish it.

(3) In rearranging the work of the school, it has been the aim to make the duties of the different instructors as nearly departmental as possible. In carrying out this plan a good degree of progress has been made, and in a short time the work will be practically completed. Its advantages are so obvious that comment does not seem to be required.

(4) An embarrassing feature of the situation has been the uncertain and irregular hours at which the students arrive at the school. So large a proportion of them live at home and go back and forth every day that any plan of operations which neglects this fact is necessarily imperfect. The removal to the new building somewhat aggravated the difficulty, though not so seriously as it was feared might be the case. The opening of the morning session has been put off until 9.30; it now closes at 12.35 for an intermission of forty minutes, after which there are two recitation periods of forty minutes each, followed by a study period closing at 4 o'clock. The majority of the students go home shortly after the close of the afternoon recitations. This plan has so far apparently worked well; it will be continued long enough, at any rate, to give it a fair trial.

(5) The removal of the school to its new building has made a favorable opportunity to rearrange and re-catalogue the library. This work has been entrusted to Miss Comey, who is carrying it on as rapidly as possible. As soon as it can be done the library will be opened to the free use of the students, and a considerable number of valuable periodicals will also be furnished.

(6) By co-operation with the city of Salem the model schools which were recommended in last year's report were organized at the beginning of the school year in September last. They are now well under way, and bid fair to give as much benefit to the work of the normal school as they were expected to do. The children in them are not a selected company, but they are taken from a district whose limits were determined by the local school board, and they were taken

without exception or discrimination. There appears to be in Salem much public interest in the schools, especially in the kindergarten, and very material contributions have been made by public-spirited citizens for the decoration of the rooms. There is every reason to believe that they are already popular.

(7) During the year several applications have been received for the admission of young men to this school. The principal is of the opinion that there is no strong reason why they should not be admitted, and it is respectfully recommended that this action be taken, the same to go into effect at the beginning of the next school year.

(8) There have also been received a large number of requests for information as to our kindergarten course, and applications for admission to the same. It would seem that there are enough ordinary kindergartners turned out now, and it is scarcely desirable that that feature should be introduced into our work unless it can be done upon a distinctly high plane.

(9) The difficulty in finding suitable boarding-places in the neighborhood of the school at reasonable prices has not been so great as was anticipated. This by so much reduces the necessity for a dormitory in connection with the school. But it is still desirable for many reasons, among which may be specified its general influence upon the tone of the school, and its probable effect in reducing the number of students who travel a long distance every day, thus losing much time, besides being subjected to the more or less demoralizing influence of such travel.

(10) The usual statistics for the school year 1896-97 are submitted herewith. It will not be improper to add that the outlook for the school year of 1897-98 is encouraging. Nearly eighty students have been admitted, as compared with forty-seven last year. There has been a very thorough pruning of the student body, — no less than fifteen having withdrawn from the school by advice, because of manifest unfitness for the work of teaching.

(11) The attempt has been made to reduce expenses to the lowest terms. At the same time, the fact appears that in almost every department — only excepting, indeed, that of physics and chemistry — the outfit of the school had become inadequate to modern demands. Even necessary text-books have had to be

almost entirely replaced. It has been the policy to buy slowly rather than in large quantities, — thus insuring against the accumulation of a mass of materials which might be found useless or unnecessary. But in the departments of geography and biology, particularly, considerable additions must be made. The library also ought to have constantly small additions.

STATISTICS FOR THE YEAR ENDING JUNE 23, 1897.

1. The whole number of pupils belonging to the school during the year was 142. Of this number, Essex County sent 77; Middlesex, 40; Suffolk, 5; Bristol and Norfolk, 1 each. The State of New Hampshire sent 9; Vermont, 4; Connecticut and Maine, 2 each; Florida, 1. The whole number of students connected with the school since its opening in September, 1854, is 4,216.

2. The number of students admitted to the school during the year was 47, of whom 10 had taught. The average age of the new students was 19 years, 1.42 months. Of the number admitted, Somerville sent 7; Salem and Cambridge, 5 each; Revere, 3; Lynn and Malden, 2 each; Essex, Groveland, Marblehead, Belmont, Manchester, Chelsea, Danvers, Andover, Norwood, Wakefield, Gloucester, Reading, North Reading, Rockport, Melrose, North Andover, and West Newbury, 1 each. New Hampshire sent 4; Vermont and Florida, 1 each.

3. The fathers of the new students are by occupation as follows: mechanics, 20; farmers, 8; merchants and traders, 7; book-keepers, 3; manufacturers and expressmen, 2 each; overseer, 1; coachman, 1; unknown, 1; none, 2.

4. The number graduated from the two years' course Jan. 27, 1897, was 9; the number graduated from the same course June 23, 1897, was 46, and from the advanced course, 1. The whole number of graduates from the two years' course in 83 classes is 2,178, and from the advanced course, 126.

ELMER H. CAPEN,  
GEORGE I. ALDRICH,

*Board of Visitors.*

## STATE NORMAL SCHOOL, WESTFIELD.

CHARLES S. CHAPIN, A.M., PRINCIPAL.

### INSTRUCTORS.

Normal School: CHARLES S. CHAPIN, A.M., Practical Pedagogy, Reading and Mathematics; CHARLES B. WILSON, A.M., Natural Science; WILL S. MONROE, A.B., Psychology, Pedagogy and Geography; EDITH S. COPELAND, Drawing and Penmanship; EDITH L. CUMMINGS, Sloyd and Gymnastics; ADELINE A. KNIGHT, History and Literature; MILDRED L. HUNTER, Natural Science and Mathematics; A. LOUISE ROGERS, Supervisor of Music.

Training School: JEAN R. AUSTIN, Eighth and Ninth Grades; J. LEONA HALE, Sixth and Seventh Grades; E. ABBE CLARK, Fourth and Fifth Grades; FLORENCE P. AXTELLE, Second and Third Grades; EUNICE M. BEEBE, First Grade; EMMA L. HAMMOND, Kindergarten.

The present condition and prospects of the Westfield Normal School give the visitors of that school especial satisfaction. The main elements in this feeling are these: the character of the work which the school is doing, the attitude of the community and of the surrounding cities and towns towards the school, and the future of this institution as indicated by the number seeking admission this year.

This is one of the oldest normal schools in the State. It has a most honorable record, and has ever been, "if not first, in the very first line," in every movement for the better training of teachers. Among those who have here served the Commonwealth as instructors there have been those whose work is an abiding strength to the cause of education, and whose names are broadly known and honored. The plant, also, is one of the best in the entire State. The building is new, well arranged and finely equipped. No other normal school is better located; perhaps it may be within the proper limits to say that no other is so well located for a large and healthy growth as this at Westfield. To say nothing of those who are likely to come from the towns of western Massachusetts, the school is within easy distance of

four cities, all of which are its natural tributaries. These cities rank among the first in the State in the advantages which they offer in the way of education. In a location of this kind, with such an equipment and having the inspiration of an honorable past, it was felt that Westfield should take high rank among the normal schools of the State, and that its work should be respected and approved by all. As this is a time when Massachusetts is putting herself at the very front in this matter of securing trained teachers for her public schools, it is clear that Westfield should meet the demands of the hour and the needs of her locality. That the school is doing this so well and that better things are in the future, is indeed and rightly a cause of gratification.

#### IMPORTANT CHANGES.

Without attempting in any way a history of the past, some reference is needed and must be made to the important changes in the teaching force which the past year has witnessed. At the last writing Principal Chapin had entered upon his duties, it is true, but he had been in service only a little more than a month, so that, while his administration of affairs was, as stated at that time, a matter of confident expectation, it was only coming to be a thing of actual experience. Some of the hardest questions were still to be solved. Before Mr. Chapin was appointed, three of the teachers, who had been longest in service, resigned, and their resignations were accepted by the Board, to take effect on or before the 1st of January, 1897. This left only three members of the faculty who began service before January, 1897, and but two who had long been connected with the school. This was rather a drastic change; but, as the change came through the action of the teachers themselves, the Board had no choice but to accept it. We must not be understood as criticising either the former administration or the teaching ability of those who resigned at the first of this year, when we say that there are times when a pretty thorough change is for the good of all. In order to restore full confidence and the necessary spirit of helpfulness, the Board felt that certain changes were wise, and, in making these, other changes were forced upon it. While not condemning any, or passing judgment in any way, we may say that this thorough

change removed many difficulties and made a better organization of the work possible. The change of so many teachers at one time seemed severe ; the visitors would have hesitated before recommending it, but it was forced upon them, and they report the result as satisfactory. The work of those who resigned has been placed in the hands of other teachers, either connected with the school at the time, or who have since been appointed.

Principal Chapin proved to be a man especially fitted for the emergency which he had to meet at Westfield. Able and resourceful, a careful master in matters of administration, and energetic in action, he possesses the very qualities which were then and there most needed, and his success has fully justified the appointment. The Westfield school has to-day the full confidence of the community in which it is located, of the school authorities and people of the different cities and towns by which it is surrounded and of those interested in the training of teachers in all parts of the State. The class admitted this year is one of the largest in the history of the school, and the pupils come not only from the near towns in Berkshire, but from Springfield, Holyoke and other cities in the vicinity, thus giving evidence of a feeling of confidence and the promise of a healthy growth. While speaking of these changes and the better conditions which now exist, it is only simple justice to add that for these good results the State is very largely indebted to the wisdom, patience and wholly disinterested action of the Hon. M. B. Whitney, then chairman of the Board of Visitors. Mr. Whitney closed his second term of service as member of the Board of Education last May. In any light in which we view the condition of matters in the Westfield Normal School at the close of the spring term of 1896, we must admit that it was disquieting and distressing. Mr. Whitney undertook the necessary work of adjustment with a clear conviction that his first duty was to the State, and with a steady purpose to work for the best good of the school, whatever might be his own personal feelings. At no time did he forget the one or hesitate in his pursuit of the other. The writer has worked with many men, but with none more manly or more disinterested in public service than Hon. Milton B. Whitney of Westfield. He served the Commonwealth wisely as a member of the Board of Educa-

tion, and the possible future of the Westfield school is largely due to his good judgment and broad sense of public duty.

At the close of the year the Board appointed Mr. Will S. Monroe to take a part of the work of the retiring teachers. To Mr. Monroe was given the departments of psychology, child study and geography. He began service in January, 1897. Mr. Monroe is a thorough student of educational subjects, has enjoyed a varied and successful experience in the practical work of teaching and is well and favorably known throughout the State. Mr. Monroe brings to his work thorough preparation in American and foreign institutions, an extensive range of professional reading, and has such enthusiasm and skill in the class room as make him a model instructor. His work in child study has attracted particular attention, and his Saturday class for teachers has been crowded at every session. He is a consistent contributor to the educational press, and the author of several pedagogical works of value. His work at the Westfield Normal School has been highly satisfactory to the principal and the visitors.

Since September all the science work has been in charge of Mr. Charles B. Wilson, to whose appointment and work reference was made in the last report. He is assisted by Miss Mildred L. Hunter, a graduate of the Bridgewater Normal School in the four years' course. Miss Hunter subsequently took a graduate course of one year in that institution, and, after successful experience in grammar and high school work, has been for the past two years an instructor in the Bridgewater Normal School. Her energy, thorough training, knowledge of the work and skill in the class room, abundantly justify the selection. This arrangement, which was made at the suggestion of the principal, is working to his satisfaction. At the close of the spring term Miss Frances I. Gaylord, who has been for a long time connected with the school, resigned, and her resignation was accepted. As yet no one has been appointed in her place. Another teacher, however, will probably be required before the end of the year.

#### LIBRARY.

Before closing the report it is necessary to call attention to some of the special needs of the school. One of these needs is



that of a large and better working library. During the year the library which the school now has has been re-catalogued and put in the best shape for use. But the library is not large, and many of the books are of the kind which do not improve with age. There is found to be a shortage, in almost every department, of books which are greatly needed. For this reason we must spend a considerable sum of money this year, and possibly for several years, in this direction. It would be wiser as a policy, we think, to spend a few hundred dollars each year for the library rather than a larger sum at any one time. A good library is of slow growth. In this way a school can keep more in touch with the times, and a better selection of books can be made. We trust this plan will soon be adopted. But at present, in the Westfield school, a larger expenditure is needed and can be wisely made.

#### PRACTICE SCHOOLS.

One of the special needs of the Westfield Normal School is more schools in which the pupils can be trained in the actual work of teaching; where, for a term of weeks, they can have full charge, working under the supervision of skilled teachers. This is even now a visible want. There are now in the normal building five rooms used for model and practice schools, and a room for the kindergarten. In these rooms there are nine grades, and all the expense of the schools is paid by the State, — Westfield simply furnishes the pupils. In the judgment of the principal, the present graduating class, which is small, can finish its work well in the schools now at his command; but when the next class is ready for practice the present provision will be wholly inadequate, since the class is much larger. It is clear, then, that adequate facilities for practice must be provided, if this school is to do entirely satisfactory work in this direction. There are two ways in which this can be done. The State can erect a new building on its present grounds, and ask the town of Westfield to send there a number of children sufficient for the practice schools needed. In this way the State would, as now, pay the bills. But we think that this is placing upon the State too great a burden, and one she ought not to bear. Nor is this in all ways most desirable for the young women who practice in these schools, since they will be

best trained if they do their teaching under the same general conditions which they will have to meet in actual service.

The other and better way of meeting this need is, if possible, some arrangement with the town of Westfield by which, without added expense to the town but with a great saving for the State, one of its schools can be used for this purpose. It is, of course, remembered that no legal obligation rests upon the town to make an arrangement of this kind; but we are inclined to believe, since the State has provided liberally for the school in the past, and Westfield has received and is still receiving great benefit from the fact of its location there, that the town will be willing to make all reasonable provisions for the training of the normal school pupils. Although no direct steps have yet been taken, we have great and good hopes that an arrangement satisfactory to the State and to the town can be made before the next class is ready for this part of its work. A good practice department is a necessity for any normal school. We presume that no one will deny this statement. The cities and towns which have the great advantage of normal schools, ought to do — and when the plan is more fully understood and the work of those schools has had sufficient time to vindicate itself we believe that they will be anxious to do — all in their power to help the good work. It is possible to keep such schools fully up to the average excellence of the other schools in the State.

Two changes in the practice schools are to be noted. A new room for the pupils of the two higher grades has been opened, and Miss Jean R. Austin, a graduate of the Westfield school from the four years' course, has been placed in charge. In June Miss Isabelle W. Gladwin resigned, to marry, and Miss Florence P. Axtelle, for some time a successful teacher in the Springfield training school, has taken her place. A new course of study has been prepared for the practice schools, and is now on trial. The work of these schools has in this way been unified and the duties of each teacher carefully defined.

#### BOARDING HALL.

A word may be said of the condition and needs of the boarding hall. During the year considerable improvement has been

made in this building by painting and papering the rooms, replacing some of the old and worn-out furniture, introducing the Welsbach lights and adding many small comforts which will make the rooms more homelike. Still, as no special appropriation had been made for this, not all was done which the condition of the rooms requires. The present year must provide for still other improvements.

On November 26 Mrs. M. E. Gernhardt resigned as matron of the hall, and Mrs. C. B. Wilson succeeded her, performing, in addition to the work of matron, those duties ordinarily belonging to the preceptress of a boarding school. Mrs. Wilson begins her work with the cordial good-will of the teachers and pupils, and has already demonstrated her ability to discharge the trying duties of her position successfully. The food, dress, social and physical surroundings of a pupil are known to determine to no small degree the character of her intellectual work. For this reason the boarding hall is receiving special attention, and the hope is to make its condition and atmosphere a real help in the work of the school. The presence in the hall of several of the teachers helps materially in this work.

### LECTURES.

Lectures on educational topics have been given before the school as follows : —

Jan. 1, 1897, Henry T. Bailey, — Elements of Beauty in Structural Design.

Feb. 3, 1897, Hon. Frank A. Hill, — Horace Mann.

Feb. 24, Sarah L. Arnold, Supervisor of Boston schools, — Conditions of Success in Teaching.

March 13, Superintendent C. A. Brodeur, — The Old and the New in Education.

May 8, Hon. A. S. Roe, — Teachers that I have liked.

May 15, Mrs. Kate Tryon, — Birds.

May 22, Hon. Frank A. Hill, — Modern Demands upon the Teacher.

Oct. 2, A. E. Winship, — Training as an Educational Factor.

Oct. 16, Superintendent T. M. Balliet, — Some Phases of Modern Educational Thought.

Nov. 13, Miss Mary L. Regal, — The Structure of Music.

We add the usual statistics : —

Number of pupils admitted to the Westfield Normal School since its organization, 4,101 ; number graduated since 1855, 1,489.

Number graduated June, 1897, 41, — 36 women, 5 men.

Present number of pupils, 103. Number of different pupils in attendance from Jan. 1, 1897, to Jan. 1, 1898, 144.

Number examined for admission in 1897, 91 ; number of candidates admitted, 74.

Residences of those admitted : Hampden County, 45 ; Hampshire County, 11 ; Berkshire County, 7 ; Franklin County, 5 ; Worcester County, 3 ; total from Massachusetts, 71. Maine, 1 ; Connecticut, 1 ; Ohio, 1 ; total from other States, 3. Total, 74.

From Holyoke, 24 ; Springfield, 8 ; Chicopee, 5 ; Conway, 5 ; West Springfield, 4 ; Easthampton, 3 ; Westfield, 3 ; Amherst, 2 ; Northampton, 2 ; Agawam, Granby, Great Barrington, Greenwich, Lee, Lenox, Pittsfield, South Hadley, Stockbridge, Templeton, Tyringham, Warren, West Stockbridge, Worcester, and Worthington, 1 each ; total, 71. From other States, 3. Total, 74.

Occupations of parents : farmers, 8 ; mechanics, 7 ; merchants, 5 ; superintendents and overseers, 5 ; laborers, 4 ; carpenters and woodworkers, 3 ; contractors and builders, 3 ; engineers, 3 ; clerks, 3 ; brick-masons, 2 ; janitors and watchmen, 2 ; physicians, 2 ; agents, 2 ; tailors, 2 ; expressmen, 2 ; clergyman, druggist, cigar-maker, manufacturer, milkman, moulder, painter, government official, paper-maker, 1 each ; miscellaneous and not reported, 12 ; total, 74.

Number of volumes added to reference library during the year, 216 ; total number of volumes and pamphlets in the reference library, 2,940.

J. D. MILLER,  
FRANKLIN CARTER,  
*Board of Visitors.*

## STATE NORMAL SCHOOL, WORCESTER.

E. HARLOW RUSSELL, PRINCIPAL.

## INSTRUCTORS.

E. HARLOW RUSSELL, Principles of Education, Theory and Art of Teaching, Reading, Psychology of Childhood; CHARLES F. ADAMS, Arithmetic, Geography, Geology, Physics; Miss REBECCA JONES, Elementary Methods, Supervision of Apprentices, Sewing, Cooking; Miss ELLEN M. HASKELL, History of Education, Civics, General Method, English; Miss ANNA P. SMITH (Librarian), Arithmetic, Algebra, Geometry, Methods, Supervision of Apprentices; Miss HELEN F. MARSH, Music, Drawing; Miss ARABELLA H. TUCKER (Clerk), Botany, Penmanship; Miss EMMA A. PIKE, English, Algebra, Methods, Supervision of Apprentices; Mrs. MARION J. SUMNER, Choral Singing; Miss E. LOUISE RICHARDS, Kindergarten; Miss AMY L. BOYDEN, Primary Teacher, Methods; Miss OLIVE RUSSELL, Assistant in Kindergarten and Primary Class; FRANK DREW, Psychology, Physiology, Nature Study; HORACE G. BROWN, English Grammar, Composition, History; Miss HENRIETTA A. MURRAY, Gymnastics, School Games.

## IN GENERAL.

The past year in this school has been prosperous and satisfactory, but not eventful. We have had full numbers, large graduating classes and an undiminished demand for teachers throughout and beyond the territory which we commonly serve. Good health, enthusiasm and diligence have prevailed, with no signs of friction or discontent. There is no evidence, so far as this school is concerned, that the opening of the new normal schools or the raising of the standard for admission has operated to the slightest disadvantage, all indications indeed pointing in the opposite direction.

## THE FACULTY.

The only change made in the teaching staff has been by way of accession. Miss Emma A. Pike, a graduate (1890) of the

Framingham Normal School and a teacher of wide experience and much culture, has been added to the faculty. Miss Pike divides her time, giving a part to the visitation and supervision of apprentices and the rest to undergraduate instruction.

#### APPRENTICESHIP.

The system of apprenticeship has been notably enlarged this year by offering an optional half-year in addition to the regular six months heretofore devoted to practice. This we regard as an important step. It gives the opportunity to every student to spend an entire year in practice-teaching under competent and careful supervision, in the excellent public schools of the city of Worcester, thus lengthening the normal course, for those who elect the senior term of apprenticeship, to three full years, and affording thereby an amount and kind of practice unequalled, so far as we know, in this country.

#### ELECTRIC CLOCKS.

An appropriation has been asked for to enable us to install an electric time-service, such as has been provided for most of the other normal schools, to supersede the present clumsy arrangement of a large number of separate clocks, which require much attention and expense to be kept in order. This improvement we regard as a necessity, from the point of view both of economy and efficiency of service.

#### MEDICAL EXAMINATION.

It has been thought needful to ascertain, by professional examination of each student, whether gymnastic practice could be safely entered upon; and Edward D. Fitch, M.D., has been employed to make such examinations, with special reference to the condition of the heart and lungs, and to certify the results in a prescribed form.

#### ACKNOWLEDGMENTS.

Our grateful acknowledgments are due to Mrs. Helen Bigelow Merriman of Worcester, who gave a most interesting address at our anniversary in June, on the theme "The lesson of beauty." We also tender our thanks to several friends for

acceptable gifts and favors more particularly enumerated in our annual catalogue.

#### STATISTICS.

1. Number of students for the year, 191.
2. Number admitted in September, 1897, 70.
3. Average age of pupils admitted, 19 years, 1 month.
4. Residences of pupils admitted: Worcester County, 69; Hampden County, 1; total, 70.
5. Occupations of pupils' parents: mechanics, 32; agriculturists, 6; salesmen, 6; policemen, 4; laborers, 4; foremen, 2; manufacturers, 2; musicians, 2; merchants 6; watchmen, 2; clergyman, insurance agent, engineer, printer, 1 each; total, 70.
6. Numbers in graduating classes: in January, 1897, 37; in June, 1897, 18; total, 55.
7. Average age of graduates: in January, 1897, 21 years, 6 months; in June, 1897, 21 years, 8 months.
8. Library: reference books reported last year, 4,448; volumes added this year, 382; total, 4,830. Text-books reported last year, 5,600; volumes added this year, 503; total, 6,103. Whole number of volumes in library, 10,933.

E. B. STODDARD,

J. D. MILLER,

*Board of Visitors.*

## STATE NORMAL SCHOOL, FITCHBURG.

JOHN G. THOMPSON, PRINCIPAL.

## INSTRUCTORS.

JOHN G. THOMPSON, Psychology and Pedagogy; E. A. KIRKPATRICK, Psychology, Child Study and History of Education; PRESTON SMITH, Natural Science; HARRIET A. LUDDINGTON, History and Geography; HELEN M. HUMPHREY, Mathematics; FLORA E. KENDALL, English; ANNETTE J. WARNER, Drawing and Nature Study; MARY G. CANNON, Physical Culture; Charles E. Boyd, Vocal Music; JOSEPH T. WHITNEY, Manual Training.

Practice Schools: CHARLES S. ALEXANDER, Principal; NELLIE B. ALLEN, MARY I. CHAPIN, MATTIE A. COLE, CARRIE E. CARNES, Supervisors; CAROLINE HAGAR, Assistant.

Model Schools: Kindergarten, EMILY M. SMITH, Principal; Lula M. LEIGHTON, Assistant; Grade I., L. FRANCES JONES; Grade II., IDA M. AUSTIN; Grade III., MARY L. MERRILL; Grade IV., ALICE C. PLUMER; Grade V., MARY E. MCCONNELL; Grade VIII., HATTIE D. SHERWIN; Ungraded, BLANCHE L. RUSSELL.

Practice and Model Schools: ANNETTE J. WARNER, Supervisor of Drawing and Nature Study; MARY G. CANNON, Supervisor of Physical Culture; JOSEPH T. WHITNEY, Supervisor of Manual Training; CHARLES E. BOYD, Supervisor of Music.

## IN GENERAL.

When the last report was printed the new building for the Fitchburg School was neither finished nor furnished. Some of the rooms had been occupied for a few weeks, it is true, but in others workmen were still busy putting in furniture and equipments. This work is now practically finished and the grading of the grounds nearly completed.

In regard to the building itself, this should be said, that, as tested in actual use, it proves even better than was expected, as expressed in the last report. The exceeding beauty of the outlook in all directions, the ample grounds, the large rooms with almost perfect light and ventilation, are incentives to good



work not to be resisted by teachers or pupils. The State has no better normal school building, and does not need a better.

Some changes have been made during the year, and certain departments of the work, not commenced a year ago, are now in successful operation.

#### MANUAL TRAINING.

In April the room designed for manual training was furnished, and Mr. Joseph T. Whitney was selected to have charge of the work. For the rest of the year he was to give one day in each week to the Fitchburg school, but with the beginning of the fall term the time was to be two days in each week. Mr. Whitney has also supervision of this subject in the Medford schools, and is one of the most successful and enthusiastic teachers of manual training in the State. He spent four years at the Massachusetts Institute of Technology, has since made a special study of his subject, both on the practical and educational side, is a natural mechanic, and understands what to do and how to do it so as to secure the best results. No better man for the work could be desired.

At the beginning of the school year Miss Emily H. Leonard, teacher of psychology and English, resigned. Miss Leonard had been connected with the school only one year, but in that short time had shown marked ability as a teacher. Her influence over the young women was a remarkable power for good. All connected with the school fully appreciated her worth, both as a teacher and as a woman. The State has many excellent teachers, but not so many that it can afford to lose one who added to fine ability as an instructor those rarer personal qualities which Miss Leonard possessed, and which are so effective in forming character. Still, even eminent educators will marry and be given in marriage.

Mr. E. A. Kirkpatrick of the Winona, Minn., Normal School, has been elected to take part of Miss Leonard's work and to have charge of the department of child study. Mr. Kirkpatrick comes to us well recommended. In spirit and attainments we believe he will add much strength to the faculty, while his successful experience as a teacher gives ample assurance that the work in his special department will be equal to the best. He begins his service January 1.

## KINDERGARTEN.

In the last report the statement was made that during the next year a kindergarten would be open. For this work a competent teacher was engaged, and a kindergarten with fifty-six children is now in successful operation. We have to report that the work of this department is satisfactory. One of the young women in the normal school is taking her training in this room, and others will do so later. In the afternoon the teacher of the kindergarten gives instruction to any who wish to elect this course. It is understood that this school is for the benefit of the normal pupils, in order that they may have all grades in which to observe and train.

## THE FIRST CLASS.

Last June the school sent out its first class, numbering twenty-six. The first graduation is a marked event in any institution, and the first class has in its keeping the honor of an institution in a sense not exactly true of any other. Two things are especially to be noted in connection with the anniversary. At this time was the first application of the rule that only those should receive a diploma who, in addition to the usual tests of scholarship, had proved their ability to govern and teach by actually doing the work. Of course some failed. Objections were raised and reasons urged why some of these should graduate; but the rule was strictly applied, without favor and without prejudice. The results have been most satisfactory. The young women who hold these diplomas have each taken charge of a room in the training school, governed and taught the school for twelve weeks to the satisfaction of the principal of the normal school and the supervising teachers. The school so taught was in all respects like the other schools of the city, and the young woman in charge was fully responsible. It is not claimed that every one who passes this test will make a successful teacher, but it is claimed that this work, if done to the satisfaction of skilled teachers, constitutes a strong presumption of ability, and gives a reasonable assurance that the diploma has a professional value. When a diploma is not given, we do not say that the young woman cannot teach, but only that she has not made such proof of her ability to do so

that the school can afford to become responsible for her work. This we believe to be wise and just to all, and, when the opportunity for such training is offered, it is the only course possible or desirable.

Further, this anniversary put emphasis on the fact that the normal school is not an academy. There has been a growing feeling on the part of many that, as a high school training is now required for admission to normal schools, the time in these schools should be devoted to professional study. At least there should be a division, and only professional work should be attempted with such subjects as are taught in the common schools.

The Fitchburg Normal School seeks to meet this demand. With the opening of the school year last September, the principal adopted a plan of work having this end in view. The entering class was divided into sections of convenient size for the purpose, and each of these divisions was given the time of one day each week for observation in the model schools. This work continues for the fall and winter terms of the first year, and is done under the direction of the normal teachers. By a previous arrangement between the teachers, while a section is observing the work in any grade in the model schools, either the regular teacher of that grade or the normal teacher in charge of the general subject then under consideration, gives a model lesson adapted to the subject as taught in that grade. If we take an illustration from geography, and suppose that the pupils are observing in the fourth grade, they will see work in the geography of that grade as a skilled teacher would present it. The rest of the work for the week in this subject consists of a careful review in recitation of the work which the pupils have observed. In this way the different sections of the class are present, during the two terms given to this work, at twenty-five lessons in geography conducted by model teachers in the different grades, and have fully considered this work in a series of recitations and discussions in class.

The same is true for each of the other subjects taught in the common schools. The plan for observation includes all grades, from the kindergarten through the eighth grade. It must be remembered that the pupils have, when admitted, much general knowledge of the subjects taught in the common schools. This plan shows the pupils just what they lack, and enables the

teachers to reach the difficulties with the least possible outlay of time and energy. It will, we think, fully meet the demand, which seems a just one, that only professional work be done in these branches. So far it has justified itself in practice. To the two points now named this quotation applies, — “The hour belongs to those who first discern its germs in the popular will.”

### THIRD YEAR PUPILS.

Fourteen of the graduates of last year remain for a third year of study and practice under the conditions granted by a vote of the Board. These conditions were that the pupils spend half the year in teaching and the other half in study at the normal school. For the twenty weeks of teaching these pupils are paid whatever the city or town where they work elects to pay, and their work itself is under the general supervision of some one of the normal teachers. The other twenty weeks are spent at the school. This opportunity is only offered to graduates of the school. While not in the least interfering with advanced work in other schools, this plan admirably meets the demand for a longer course and a better training. We expect that another year more will wish to take this course.

### SATURDAY CLASSES.

In October Saturday classes for teachers in actual service were established. It seems possible to do this in connection with the normal schools, and still not increase the expense to the State. That there is a demand for this kind of work appears from this, that so far over eighty teachers have availed themselves of the opportunity and more are expected. This work is offered in geography, nature study, English, psychology and pedagogy. There is without doubt some demand that the normal schools shall do something for those who cannot attend its regular sessions, and this work will in some measure meet this demand. It must also in the nature of the case work for the benefit of the schools in general. It would seem clear, then, that the Saturday classes are desirable and necessary.

### LECTURES.

The plan of a course of lectures by men well known and of high standing and reputation in matters of education, which

formed part of the work last year, has been continued, and with the best results. The small sum thus expended, we think, gives most excellent returns. It must be remembered that these are not popular lectures, the object of which is first of all to please, but lectures upon important educational topics by men who have made a special study of the things of which they assume to speak and whose opinion is of great value to those who are preparing to teach. The following is a list of the speakers and the subjects : —

Mr. Henry T. Bailey (two lectures), — Drawing as a Culture Study ; How to read a Picture.

Dr. G. Stanley Hall, — Practical Modifications now needed in our Public School System.

Hon. Alfred S. Roe (three lectures), — Hearing a Pin Drop ; School Diversions ; Speaking Pieces.

Mrs. Adelaide F. Chase, — James Whitcomb Riley.

Mrs. Alice Freeman Palmer, — Present Duties to our Public Schools.

Mr. L. Walter Sargent, — Norse Mythology.

State Superintendent N. C. Schæffer, — Thinking in Things and Symbols.

Mr. C. F. Carroll, — Physical Education.

Mr. J. E. Burke, — The Educational Outlook.

Mr. Thomas M. Balliet (three lectures), — New Phases of Educational Thought ; Education of the Feelings ; Apperception.

Prof. M. V. O'Shea, — Some Applications of Modern Psychology and Child Study to the Training of Children and the Conduct of Life.

Mr. A. E. Winship, — History and Geography, — A Practical Talk on Correlation.

Mr. S. T. Dutton, — The School as a Social Institution.

Mr. A. K. Whitcomb, — Physical Defects of School Children.

State Superintendent W. W. Stetson, — The Emotions as a Factor in Education.

Hon. Thomas B. Stockwell, — Some Things we are in Danger of forgetting.

State Superintendent Fred Gowing, — The Pedagogical Problem.

#### TRAINING SCHOOL.

The work of the training school has improved much during the last year. This school has passed the period of trial, and is now well established in its position. The city approved, by

its special committee, the work of the school. This year each division, for the three months previous to beginning work in the training school, takes one day a week for special preparation. During this time the young women receive instruction from the supervising teachers, observe the work of the special grade they are to take, either in the training school or elsewhere, gather material and prepare lessons for their own work when they begin teaching. For example, if, during the twelve weeks a young woman is to be in the training school, one of the subjects she would have to teach is South America, she would in this preparation gather material and prepare lessons upon this subject, under the direction and criticism of the supervisor and the normal teacher in charge of this work. This is true of all the subjects she will be called to teach. In this way the pupils come to the work much better prepared, and, when they teach, their teaching is much more satisfactory. We expect that the training school will do its work better and better each year, and easily hold its own with other schools of the city.

The departments of the Fitchburg Normal School are now fully organized, its work is strongly commended and its future assured. The demand for its graduates is already far greater than the supply.

The statistics for the year ending August 31, 1897, are as follows:—

Number of students for the year, 111, — 110 women, 1 man; number in the entering class, 66, — 65 women, 1 man; number of graduates for the year, 26; number receiving certificates for special courses, 12.

The whole number of students admitted since the opening of the school, 165, — 164 women, 1 man.

Number of States represented in the membership of the school for this year, 5.

Number of counties in Massachusetts represented, 3.

Number of towns in Massachusetts represented, 21.

#### *The Entering Class.*

Average age, 20 years, 6.6 months.

Number who have had experience as teachers, 26.

Occupations of parents : Skilled laborers, 11 ; farmers, 7 ; superintendents and foremen, 6 ; merchants, 4 ; laborers, 3 ; janitors, 2 ; contractors and builders, 2 ; professional men, 2 ; railroad men, 2 ; bookkeeper, 1 ; agent, 1 ; public official, 1 ; retired, 5 ; unclassified, 4 ; not living, 15 ; total, 66.

Number of pupils in school Dec. 1, 1897, 108.

J. D. MILLER,  
ELMER H. CAPEN.

*Board of Visitors.*

## STATE NORMAL SCHOOL, NORTH ADAMS.

FRANK FULLER MURDOCK, PRINCIPAL.

### INSTRUCTORS.

FRANK FULLER MURDOCK, Psychology, Pedagogy, History of Education, Geography; ROLAND W. GUSS, Science; CHARLES H. STEARNS, Manual Training; ANNETTE M. BARTLETT, Mathematics and Music; M. ANGELINE PEARSON, Drawing and Color; CATHERINE W. PARKER, English, Vocal Expression, History; ANNIE C. SKEELE, Physiology, Physical Culture; SUSAN S. HARRIMAN, Kindergarten Department.

On the first of February, 1897, the normal school at North Adams was opened, the faculty of four members consisting of the principal, Mr. Guss, Miss Bartlett and Miss Pearson. A class of thirty-two students, three of whom were men, was received. The number of students was larger and their preparation better than was anticipated. Their zealous, persistent efforts, accompanied by a sympathetic spirit unexcelled in its force and steadiness, have given at the outset the right tendency to student life in the school.

During the summer and autumn cases and apparatus were provided for the immediate needs of the science work, the gymnastic work and the manual training. The embankments were strengthened so as to prevent washing, and the grounds adjacent to the buildings were levelled. Grass-seed was sown, and thus to some degree the barrenness of the aspect was relieved and further annoyance from clouds of dust prevented.

By the first of September the construction of the building, the appearance of the grounds and the progress of the school warranted some public notice, and on the evening of the third, dedicatory exercises were held, after which the building was thrown open for inspection. Col. E. B. Stoddard of Worcester, chairman of the building committee, presided. Addresses



were made by Senator George F. Hoar, Mayor Albert C. Houghton, President Franklin Carter of Williams College, Senator George P. Lawrence, President T. C. Mendenhall of Worcester Polytechnic Institute, Mr. Albert G. Boyden of the Bridgewater Normal School and Mr. E. Harlow Russell of the Worcester Normal School. The attendance was very large, and evidenced clearly the pleasure and pride of the citizens of North Adams in their normal school.

A second class of forty-six, two being men, was received in September. The faculty was strengthened by the addition of four new members, — Miss Catherine W. Parker, Miss Annie C. Skeele, Mrs. Susan S. Harriman and Mr. Charles H. Stearns. The new departments have added much to the interest and effect of the work of the school. Seven young ladies are pursuing the kindergarten course.

Of the seventy-six students now in attendance, more than forty bring luncheons daily, and it will be necessary to provide at once larger and more suitable accommodations for the convenience of these pupils. Fifteen students board in private families.

The following agreement was entered into in April by the State and the city of North Adams, viz. : —

AGREEMENT FOR THE CONDUCT OF A SCHOOL OF OBSERVATION AND  
PRACTICE IN CONNECTION WITH THE STATE NORMAL SCHOOL,  
NORTH ADAMS, MASS.

In accordance with section 5, chapter 457, Acts of 1894, whereby the city of North Adams, Mass., agreed in writing "to hereafter furnish suitable and sufficient school buildings and model and practice schools in connection with the training departments of the State normal school to be established at North Adams,"

THIS AGREEMENT is made and entered into this first day of April in the year one thousand eight hundred and ninety-seven, by and between the city of North Adams, in the county of Berkshire and Commonwealth of Massachusetts, acting through the mayor, Albert C. Houghton, thereto duly authorized, and the school committee of said North Adams, acting through the said mayor thereto duly authorized, parties of the first part, and the State Board of Education, acting for and in behalf of the Commonwealth of Massachusetts, as the party of the second part, to establish and maintain a school of observation and practice upon the following terms : —

SECTION I. The city of North Adams agrees :—

1. To the use of the Church Street school by the normal school as a school of observation and practice.

2. To include within the same all grades of the kindergarten, primary and grammar departments.

3. To furnish, heat, clean and repair the buildings and care for the grounds.

4. To provide a principal, and assistant teachers not exceeding in number the number of rooms.

5. To expend for teachers' salaries, text-books, supplies and apparatus for the said school sums of money which shall be, in each year, that proportional part of the total expenditure by the city for teachers' salaries, text-books, supplies and apparatus, excluding those furnished the high school, which the average yearly number of pupils of the Church Street school is of the average yearly number of pupils attending all the schools of the city, excluding the high school.

6. To maintain a school of such a size as will provide pupils for each room to a number not inconsistent with the welfare of the pupils and the use of the class for the said purpose of observation and practice.

7. All and each of the above provisions shall be satisfactory to the Board of Education of the Commonwealth of Massachusetts.

SECTION II. The Commonwealth of Massachusetts agrees :—

1. To use the Church Street school as a school of observation and practice in such a manner as to equal at the least the general educational requirements of the school committee of the city of North Adams.

2. To pay to the principal and assistant teachers of the said school, in addition to the amount paid by the city of North Adams, such salaries as shall be necessary to provide teachers qualified for the peculiar work of the said school.

3. To expend for text-books, supplies and apparatus, in addition to the money expended by the city of North Adams for the said purpose, such sums of money as shall be necessary for the proper conduct of the said school as a school of observation and practice, such material to be marked "Property of the State Normal School, North Adams, Mass."

4. All and each of the above named provisions shall be with the approval of the school committee of the city of North Adams.

SECTION III. It is further mutually agreed by the city of North Adams and the Commonwealth of Massachusetts :—

1. That all teachers of the school of observation and practice shall be nominated by the principal of the normal school, their election, as for all teachers, being by the school committee.

2. That all courses of study, text-books and changes therein shall be approved by the principal of the normal school and the school committee of said city before going into effect.

3. That all matters of promotion, discipline, attendance and truancy shall be under the care of the school committee of said city.

SECTION IV. It is finally mutually agreed by the city of North Adams, Mass., and the Commonwealth of Massachusetts :—

1. That this agreement shall be subject to such modifications as shall be agreed upon hereafter by the said city and Commonwealth.

2. That this agreement does not so fully meet the requirements of section 5, chapter 457, Acts of 1894, as to prevent further provision for model and practice schools in a manner to be agreed upon mutually by the said city and Commonwealth.

The Mark Hopkins School, having an attendance of five hundred pupils, was selected for the purpose indicated; and the city, at the request of the Board of Education, proceeded to double the size of the building, to divide the crowded classes and to erect a separate gymnasium for the direct use of the children. The attitude of the school committee and of the superintendent has evinced warm sympathy with the aims of the school and great wisdom in helping us to realize them. It is doubtful if prompter or more enthusiastic co-operation has been secured in any community where a normal school has been established. The hearty and intelligent work of the teachers of this school, who have served in their new capacity this year without pay from the State, is worthy of warmest commendation. During the year 1898 it will be necessary for the State to pay portions of the salaries of seventeen teachers in this school, and to provide much additional apparatus for practice school purposes.

In accordance with an agreement made at the time of locating the school, the grading of the adjoining street is well under way. It is now possible to grade the school lot, and it should be treated in a manner appropriate to the natural environment, to the school buildings and to the educational needs of the school. It is recommended that steps to this end be taken at once.

When the grounds shall have been graded, there will be almost no portion available for exercise in the open air. At the west edge of the school lot, between it and Montana Street,

is a row of four vacant lots. Houses built on these lots will present their back yards as the foreground of what otherwise will afford the finest view from the school building. At the south side the State property abuts upon a private street, which, if laid out according to present lines, will necessitate the construction of a long stone wall from one foot to ten or twelve feet in height. The street will then be in a deep cut, and approach to the buildings on the south side will be impossible. Across the upper half of this street is an unimproved piece of ground which will be necessary for normal school uses in the near future. The purchase of the land will obviate the necessity for the stone wall, the cost of which would be a considerable part of the price to be paid for the land. It is recommended that the Legislature be asked to purchase the vacant lots on the west side of the present land owned by the school, and also the unimproved land on the south side of the private street, and thus secure at once, without further rise in value, the additional land certain to be indispensable to the school at no distant day.

#### STATISTICS.

1. Number admitted in February, 32, — men 3, women 29. Number admitted in September, 46, — men 2, women 44. Whole number in attendance during the year, 78.

2. Average age of February class, 20 years, 8 months; of September class, 21 years.

3. Number of students received from Massachusetts, Berkshire County, 72; Franklin County, 1; from Vermont, 2; from New Hampshire, 3.

4. Occupations represented: farming, 21; stonemason, 1; factory and mills, 11; electricians, 2; miller, 1; police, 1; superintendents, 2; painters, 3; carpenters, 2; clerks, 2; merchants, 6; laborer, 1; lumber and wood, 3; tinsmith, 1; blacksmiths, 3; engraver, 1; cooper, 1; druggist, 1; lawyer, 1; engineer, 1; hotel keepers, 2; contractors, 3.

FRANKLIN CARTER,  
E. B. STODDARD,

*Board of Visitors.*

## STATE NORMAL SCHOOL, HYANNIS.

W. A. BALDWIN, PRINCIPAL.

### INSTRUCTORS.

W. A. BALDWIN, Psychology, Pedagogy, History of Education; SARA T. OLIVER, B.S., Chemistry, Mineralogy, Drawing; BERTHA M. BROWN, B.S., Biology, Mathematics, English; EDMUND F. SAWYER, Vocal Music.

Training School: RICHARD WALLACE MARSTON, Principal, grades 8 and 9; Mrs. NELLIE ESTER COLEMAN WILBUR, grades 6 and 7; MARY MARION BUCKLEY, grades 4 and 5; BERTHA KENT CUSHMAN, grades 2 and 3; CHARLOTTE IMOGEN SMITH, grade 1.

This school was opened for its first class on Sept. 9, 1897. Not more than twenty-five or thirty pupils were expected, and provision had been made for only thirty. This number has, however, increased, until there is now a total enrolment of forty pupils. With two exceptions these pupils come from Barnstable County, nine of whose fifteen towns are represented in the school.

### TEACHING FORCE.

Having only the entering class for which to provide, the visitors have deemed it wise to commence with a small number of teachers, adding to this number as may be found necessary.

Great care has been exercised in the selection of the teaching force. Each teacher has had a college training and large teaching experience; the majority are normal graduates. Each teacher is especially prepared along one or two lines, but each has sufficient general training and adaptability to enable her to take several lines of work. All are young, earnest and enthusiastic in their work.

### BUILDINGS.

There are four buildings connected with the school, viz.: the normal school building, the training school building, the dormitory and the principal's residence.

The normal school building is well adapted to the work for which it was planned. It is well provided with recitation rooms, lecture rooms and laboratories. The furniture and equipment are simple but substantial, and correspond well with the finish of the building. The gymnasium, the industrial laboratory and two recitation rooms have not yet been needed, and so have not been furnished. The policy thus far has been to purchase only those things for which there would be immediate use.

The training school building is a fine, modern brick structure, erected and equipped by the town. It is situated on a lot adjacent to the normal school grounds, and corresponds well in appearance with those erected by the State. In this building are housed all of the children of the village of Hyannis, below the high school grade.

The dormitory is only a few steps from the normal school building, and is heated and lighted by the same plant. It is a substantial brick structure, containing twenty-six rooms for students, two for teachers, one for a matron, three for servants, a guest chamber, a parlor, a dining room, a kitchen, a laundry, a pantry, a servants' sitting room and a storeroom. All but ten of these rooms have been furnished and occupied. An excellent matron presides here, and great pains is taken to make this a pleasant home for all.

The principal's residence is located on the estate, the main part of which was purchased and presented to the State. Later the State purchased the remainder of the estate, with this house. It was erected thirty years ago, and was then the pride of the village. It has been kept in good repair, but lacks the conveniences of a modern house. During the summer a bath-room and a small reservoir connecting with the water supply at the school have been supplied. There is urgent need for adequate heating apparatus, an enlargement of the cellar, new timbers under a part of the house and a good coat of paint within and without.

This school, situated midway on the Cape, will naturally draw the majority of its pupils from the Cape (Barnstable County). When one considers that the population from which the school must draw its main support is only twenty-three thousand, it will be seen that it must be the smallest school in

the State. This fact, together with such conditions as the mild, healthful climate of Hyannis, its nearness to the sea, and the fact that the majority of the teachers of the Cape teach only about thirty-four weeks, would seem to place this school in a class by itself. In this connection the suggestion has been made that a different policy might well be pursued toward this school from that which is pursued toward the other normal schools of the State. The demand for summer schools is increasingly emphatic. The thought has occurred to many that the demand could not be better met than by the establishment of a summer session in one or more of the normal schools. For such an experiment Hyannis has peculiar advantages. A term of ten or twelve weeks of regular normal school work might be given each summer, and a system of credits could be easily arranged, so that teachers, by attending a sufficient time during such summer sessions and giving conclusive proof of their ability to teach, might receive diplomas of graduation.

Such experiments are being tried in various sections of the country, and, it is claimed, with good results. The matter is certainly worthy of careful consideration.

#### STATISTICS.

1. Number of students registered: men, 9; women, 31; total, 40.
2. Average age when admitted, 19 years, 7 months.
3. Number who have had experience as teachers, 4.
4. Residence of pupils: Barnstable County, — Barnstable, 16; Brewster, 2; Dennis, 6; Falmouth, 2; Harwich, 1; Provincetown, 4; Sandwich, 1; Wellfleet, 1; total, 38. Dukes County, — Edgartown, 1. Middlesex County, — Natick, 1. Total, 40.
5. Occupations of pupils' parents: Mariners, 7; farmers, 12; painters, 2; public officials, 3; miscellaneous, 3; fishermen, 3; engineer, blacksmith, insurance agent, grocer, butcher, glass-maker, clerk, mill-owner, shoe dealer, 1 each.

GEORGE I. ALDRICH,  
ALICE FREEMAN PALMER,  
*Board of Visitors.*

## STATE NORMAL SCHOOL, LOWELL.

FRANK F. COBURN, PRINCIPAL.

### INSTRUCTORS.

FRANK F. COBURN, Psychology, Principles of Education, School Organization and School Government; HUGH J. MALLOY, Mathematics and Physics; MABEL HILL, History and Civil Government; LAURA A. KNOTT, English Language, Rhetoric and Literature; ANNA W. DEV-  
EREAUX, History of Education, Kindergarten Theory and Practice; ADELIA M. PARKER, Geography and Critic Teacher.

The Lowell Normal School has been established in accordance with resolves passed by the Legislature of 1894. The building erected is a large, three-story, massive structure, built of gray brick and limestone. It is situated on high land, overlooking the city on one side and the Merrimac valley on the other. The railroad station is within fifteen minutes' walk, and the street cars pass the door of the school. It is probable that in a short time the Boston & Maine Railroad Company will erect a station for the accommodation of the school on land adjoining the normal school site.

The construction is after the most approved plans in regard to light, heat and ventilation, and the building will be furnished with the most modern means of teaching and study. As yet some details in finish and fittings remain undone; but the building is occupied, the school organized, and the work of the classes carried on with convenience. Within a few weeks it is expected that in all its appointments, both in regard to structure and furnishings, the building will be complete. Under the personal direction and supervision of the principal, who was appointed early in the year, the building has been equipped and furnished for school purposes.

In February Mr. Frank F. Coburn was elected by the Board principal of the school. He had been for several years master of the Lowell high school, and his experience and reputation



have served materially to establish confidence in the new school and to obtain for it the support and co-operation of the residents of Lowell and vicinity.

On Oct. 4, 1897, the school was opened with a large number of pupils in attendance. The number of candidates examined for admission was 127; the number admitted, 114; and the number of pupils enrolled and in attendance at the opening of the school as regular students was 109.

In addition to this number, there is a special kindergarten class of 31 pupils who were last year connected with the Lowell training school. As it is the intention of the city to discontinue its training school in consequence of the establishment of the normal school, these pupils were admitted as special students, that they might continue the kindergarten course entered upon under the auspices of the training school. They attend the afternoon sessions of the normal school, and devote their mornings to practice in the kindergarten schools of the city.

Apart from this special class, the number of pupils enrolled is greatly in excess of the number expected for an entering class, and the outlook would seem to indicate that next year the school will attain nearly its full complement. The membership of the school is about equally divided between residents of Lowell and those of adjoining cities and towns. Altogether there are twenty-four different places represented by the pupils. The management of the Boston & Maine Railroad has made a generous reduction in fares to pupils living on its lines outside the city, and the Lowell & Suburban Street Railway Company also offers reduced rates for travel under certain restrictions to all pupils attending the school.

In the selection of teachers great care has been taken, and the five assistants thus far appointed have been selected on account of their experience and the special skill and knowledge which they possess in the departments of study which they are to conduct when all the courses of the school are in operation. In January it will be necessary to increase this number, and to appoint some of the special teachers required, in order to carry out the course of study prescribed for the first year's work. When the second year's class is admitted next September, the teaching force will be increased to its full quota.

The arrangements made with the school committee of Lowell provide abundant facilities for observation and practice. A large new building, fitted with all modern appliances and containing every grade of primary and grammar work, including also a kindergarten class, has been assigned by the city as a model school. Additional accommodations have also been placed at the State's disposal for schools of practice. These arrangements require only a moderate outlay for the maintenance of both model and practice schools. The teachers for these schools will be approved and the schools be put in operation in connection with the normal school as soon as they are needed for observation and practice work.

In all normal schools a knowledge of kindergarten work is considered essential. That teachers of primary grades especially should be familiar with kindergarten principles is obvious. The State schools provide kindergarten instruction, but none of them undertake, in a large way, with the aid of so generous practice facilities as are possible in Lowell, to prepare pupils for kindergarten teaching. Whether the special training required for such purposes should be further encouraged by the State at this time it is for the Board to determine. The general adoption of the kindergarten throughout the State will create a public demand for trained kindergarten teachers, which, as may be properly assumed, it will be the function of the normal schools to supply. The suggestion as to the advisability of the State giving special attention to kindergarten instruction and training in the Lowell Normal School is prompted by the favorable opportunity that presents itself for so doing. In connection with the Lowell training school for several years past there have been large classes of kindergarten trainers, and admirable facilities for training purposes have been afforded by the large number of kindergarten schools maintained by the city. In all there are a dozen kindergarten schools which the city is willing to place at the disposal of the normal school for training purposes. Any or all of these may be taken without cost to the State, as the maintenance of the schools and salaries of the teachers will be wholly defrayed by the city. It would seem certainly to be of great advantage to the State to avail itself of the adequate facilities thus offered for the establishment of a thorough and systematic course in kinder-

garten training. Accordingly the visitors recommend that such a course be established by the Board in connection with the Lowell Normal School.

#### STATISTICS.

The following statistics are from Oct. 4 to Dec. 10, 1897:—

Number who took entrance examinations, 127; number admitted to entrance examinations, 114; number in attendance December 10, 109; number of special students, 31; total membership, 140.

The number admitted from colleges, 2; from academies, 15; from high schools, 97.

Average age of pupils on entering, 19 years, 3 months.

Of the entering class, Middlesex County is represented by 11 towns, Essex County by 4 towns, Suffolk County by 1 town, and the State of New Hampshire by 4 pupils. Lowell furnishes 70 pupils; Lawrence and Chelmsford, 6 each; Tewksbury, 5; Acton, 4; Methuen, North Andover and Westford, 3 each; Concord, N. H., Lexington and Tyngsborough, 2 each; and 1 each from Andover, Boston, Concord, Nashua, N. H., Reading, Winchester, Woburn, and Wolfboro, N. H.

Occupations of parents: agents, 3; contractors, 6; engineers, 3; farmers, 8; foremen, 6; librarian, 1; manufacturers, 4; mechanics, 29; merchants, 7; police officers, 2; photographer, 1; professional, 3; proprietor, 1; real estate, 3; tailors, 2; U. S. service, 1; retired, 5; miscellaneous, 10; reported dead, 19.

GEORGE H. CONLEY,  
KATE GANNETT WELLS,

*Board of Visitors.*

## STATE NORMAL ART SCHOOL, BOSTON.

GEORGE H. BARTLETT, PRINCIPAL.

### INSTRUCTORS.

GEORGE H. BARTLETT, Modeling from Life, Historic Ornament and Design, Normal Art Methods in Teaching Exercises, Criticism; ALBERT H. MUNSELL, EDWARD W. D. HAMILTON, ERNEST L. MAJOR, Drawing and Painting from the Antique Figure and Life Model, Artistic Anatomy, Composition, Design, Normal Class Work; MERCY A. BAILEY, Water Color Painting, Normal Class Work; ANSON K. CROSS, Free-hand Drawing, Perspective, Normal Class Work; GEORGE JEPSON, Descriptive Geometry, Machine Drawing, Shop Work, Normal Class Work; HARRY J. CARLSON, Building Construction, Architectural Drawing and Design, Normal Class Work; M. LOUISE FIELD, Drawing in Public School, Pedagogy as Applied to Art, Normal Class Work; ANNIE E. BLAKE, Modeling and Casting, Design in the Round, Normal Class Work; JOHN L. FRISBEE, Ship Draughting; WILHELMINA N. DRANGA, Drawing in the Public Schools, Normal Class Work; AMY WIRES, Assistant in Class A; ELIZABETH J. HINCKLEY, Curator.

Never has the Normal Art School had so large an entering class as this October, for the influence of the school is more and more widely felt as its graduates become teachers and supervisors. With all its progress in its varied departments, its peculiar function as a normal art school is steadily maintained, and carried each year to a higher degree of efficiency.

The work in the beginning must necessarily be academic, though always with its later professional use in view, until the pupils understand theoretically the subjects they will have to teach and can execute them in practical work; for none of them on entrance possess the requisite amount of knowledge for one who wishes to be a successful teacher. This knowledge gained to some extent, they then are taught in each of the classes how to do strictly normal work, and, finally, those who are to become teachers devote an entire year to the work of the

public school class, where they study pedagogy as applied to art, and are fitted to fulfil the practical requirements of our public schools in connection with drawing.

The immediate evident want of the school is that of increased accommodations. It is much to be desired that the yard belonging to the school on its east side should be built upon as an addition to the present building, thus providing more class, lecture and studio room. All but three of the rooms it now has are overcrowded, poor light prevails in many of them, while in none of them can the work be as economically and systematically supervised as if there were more space.

The principal of the school and each member of its faculty are untiring and wise in their devotion to its interests, working beyond hours, devising new methods and inspiring the pupils to higher and greater activity month by month.

The increased zest and ability of the school is due chiefly to two causes: (1) The pupils and the everyday world are becoming more and more conscious of the close relation between the industrial and the fine arts, and of the necessity for practical designs as a medium for teaching in class work; (2) an excellent opportunity has been offered the last two years for the students to observe and teach in several of the public schools of Boston. There are now more applications from the principals of the city schools for such volunteer assistance than our school can at present supply.

Mention should be made of the alumni association of the school, which, by its meetings, its life class and its tokens of recognition at stated times for the best work, is spreading a spirit of healthful emulation and of proud regard for the school. It is now preparing a history of the school and a record of its alumni, many of whom are distinguished as sculptors and artists or as teachers and supervisors.

The statistics for the school from Oct. 1, 1896, to June 24, 1897, are as follows:—

Total number of students, 217: males, 40; females, 177. Number in attendance at the present time (Nov. 11, 1897), 253.

Average age of the students, 22.7 years.

Graduates in June, 1897: public school class, 12; class in mechanical drawing, 2; class in industrial drawing, 6; total, 20.

Appointments since Oct. 1, 1896, of past pupils to be teachers and supervisors of drawing, 28.

Number of students from the several counties in the State, 1896-97 : Suffolk, 74 ; Middlesex, 55 ; Essex, 19 ; Worcester, 26 ; Norfolk, 19 ; Bristol, 1 ; Plymouth, 10 ; Hampden, 3 ; Franklin, 1 ; total, 208. Students from other States are distributed as follows : New York, 2 ; Maine, 1 ; New Hampshire, 3 ; Rhode Island, 1 ; Michigan, 2 ; total, 9. Total from other States and Massachusetts for the year, 217.

Occupations of fathers of students, 1896-97 : professions, 13 ; insurance, 7 ; manufacturers, 19 ; contractors and builders, 8 ; merchants and traders, 30 ; farmers, 12 ; teachers, 11 ; mechanics, 28 ; commercial business, 17 ; other callings, 29 ; total, 174. Deceased, 34 ; retired, 9. Total, 217.

KATE GANNETT WELLS,  
GEORGE H. CONLEY,  
E. B. STODDARD,

*Board of Visitors.*

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SIXTY-FIRST ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

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## REPORT OF THE SECRETARY.

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*To the Board of Education and the General Court.*

The sixty-first report of the secretary of the Board of Education is herewith respectfully submitted. The law requires that this report shall not only give information to the Board and the General Court upon the condition and efficiency of the public schools, but that it shall also offer suggestions to both your honorable bodies for the improvement of such schools. For the statistics in detail, on which the following summary is based, reference should be made to the Appendix. For the summary of recommendations made by the secretary, reference should be made to the concluding pages of his report.

### SUMMARY OF STATISTICS FOR 1896-97.

#### *I. Number of Public Day Schools.*

1. Number of towns, 321; cities, 32. Total, 353.  
All have made the annual returns required by law.
2. Number of public schools, the unit of comparison being a single school which has one head or principal, whether the school has one teacher or several, . . . . . 4,501  
Decrease for the year, . . . . . 38
3. Number of public schools based on the single class room as the unit of comparison, . . . . . 9,557  
Increase for the year, . . . . . 404

#### *II. Enrolment, Membership and Attendance.*

1. Number of persons in the State between the ages of five and fifteen years May 1, 1896, . . . . . 431,387  
Increase for the year, . . . . . 14,052
2. Number of persons of all ages in the public schools during the year 1896-97, . . . . . 439,367  
Increase for the year, . . . . . 15,014
3. Average membership of pupils in all the public schools during the year 1896-97, . . . . . 363,866  
Increase for the year, . . . . . 14,530

4. Average attendance in all the public schools during the year 1896-97, . . . . .	334,945
Increase for the year, . . . . .	13,260
5. Percentage of attendance based on the average membership, . . . . .	92
6. Number of children under five years of age attending the public schools, . . . . .	6,868
Increase for the year, . . . . .	1,238
7. Number of persons over fifteen years of age attending the public schools, . . . . .	41,886
Increase for the year, . . . . .	230

### III. Teachers and Wages.

1. Number of men employed as teachers in the public schools during the year, . . . . .	1,120
Increase for the year, . . . . .	42
2. Number of women employed as teachers in the public schools during the year, . . . . .	11,723
Increase for the year, . . . . .	526
3. Number of different teachers employed in the public schools during the year, . . . . .	12,843
Increase for the year, . . . . .	568
4. Number of teachers required by the public schools, . . . . .	11,301
Increase for the year, . . . . .	619
5. Number of teachers who have attended normal schools, . . . . .	4,661
Increase for the year, . . . . .	121
6. Number of teachers who have graduated from normal schools, . . . . .	4,103
Increase for the year, . . . . .	200
7. Average wages of male teachers per month in the public schools, . . . . .	\$144 80
Increase for the year, . . . . .	\$8 77
8. Average wages of female teachers per month in the public schools, . . . . .	\$52 20
Increase for the year, . . . . .	\$1 90

### IV. Length of Schooling.

1. Aggregate of months (twenty school days each) all the public schools have been kept during the year, . . . . .	89,225 $\frac{13}{20}$
2. Average number of months the public schools have been kept during the year, . . . . .	9 $\frac{6}{20}$

### V. High Schools.

1. Number of high schools, . . . . .	262
Increase for the year, . . . . .	4
2. Number of teachers in high schools, . . . . .	1,283
Increase for the year, . . . . .	97

3. Number of pupils in the high schools, . . . . .	36,228
Increase for the year, . . . . .	1,905
4. Amount of salaries paid to principals of high schools, . . . . .	\$362,511 30
Increase for the year, . . . . .	\$9,266 86

### VI. Evening Schools.

1. Number of cities and towns having evening schools, . . . . .	55
2. Number of evening schools, . . . . .	739
3. Number of teachers, . . . . .	1,352
4. Number of pupils : male, 20,126 ; female, 9,674 ; total, . . . . .	29,800
5. Average attendance, . . . . .	16,472
6. Expense, . . . . .	\$185,862 42
7. Decrease in the number of pupils for the year, . . . . .	750
8. Increase in the expense for the year, . . . . .	\$9,558 40

### VII. Cost of Schools (Taxation).

1. Amount raised by taxation and expended for the support of public schools, including only wages and board of teachers, transportation of pupils, fuel for the schools and care of fires and schoolrooms, . . . . .	\$7,736,815 48
Increase for the year, . . . . .	\$376,402 10
2. Expense for transportation of pupils ( <i>included</i> in the foregoing amount raised by taxation), . . . . .	\$105,717 13
Increase for the year ( <i>included</i> in the foregoing increase), . . . . .	\$14,581 02
3. Expense of supervision for the year, . . . . .	\$326,090 46
Increase for the year, . . . . .	\$9,416 39
4. Salaries of superintendents ( <i>included</i> in the foregoing amount for supervision), . . . . .	\$207,745 66
Increase for the year, . . . . .	\$4,836 99
5. Expense of books, stationery and school supplies, . . . . .	\$578,146 59
Increase for the year (see No. 6), . . . . .	\$55,493 68
6. Sundries (school reports, school census, and such items as cannot be classified elsewhere), . . . . .	\$296,350 78
Increase for the year, . . . . .	\$48,886 38
7. Amount expended in 1896-97 for new schoolhouses, . . . . .	\$2,207,981 78
Decrease for the year, . . . . .	\$192,024 09
8. Amount expended for alterations and permanent improvements in schoolhouses, . . . . .	\$520,215 28
Increase for the year, . . . . .	\$14,738 28
9. Amount expended for ordinary repairs, . . . . .	\$530,148 89
Increase for the year, . . . . .	\$245,973 35

### VIII. Cost of Schools (Voluntary Contributions, etc.).

1. Amount of voluntary contributions for the public schools, . . . . .	\$8,852 12
Increase for the year, . . . . .	\$531 55

2.	Amount of local school funds the income of which can be appropriated to schools and academies, . . . . .	\$2,791,608 13
	Decrease for the year, . . . . .	\$64,389 29
3.	Income of local funds appropriated to schools and academies, . . . . .	\$129,436 26
	Decrease for the year, . . . . .	\$2,841 63
4.	Income of funds appropriated for public schools at the option of the town, as surplus revenue, tax on dogs, etc., . . . . .	\$99,067 89
	Increase for the year, . . . . .	\$1,425 84
5.	Income of State school fund paid to towns in aid of public schools in 1897, . . . . .	\$86,968 65
	Increase for the year, . . . . .	\$603 83

### IX. Academies and Private Schools.

1.	Number of incorporated academies, . . . . .	53
2.	Whole number of pupils in academies for the year, . . . . .	5,418
3.	Amount of tuition paid in the academies during the year, . . . . .	\$394,558 33
4.	Number of private schools, . . . . .	365
5.	Whole number of pupils in private schools during the year, . . . . .	63,370
6.	Amount of tuition (largely estimated), . . . . .	\$564,128 67

### X. Miscellaneous.

1.	Expenditure from the State school fund for apparatus and books of reference for the year 1895-96, . . . . .	\$2,898 75
	Decrease for the year, . . . . .	\$268 38
2.	Aggregate returned as expended upon public schools alone, <i>exclusive</i> of repairing and erecting schoolhouses (see VII., 1, 3, 5, 6 and VIII., 1, 4, 5), . . . . .	\$9,132,291 97
	Increase for the year, . . . . .	\$492,759 77
3.	Average based on the above (X., 2) for each child in the State between five and fifteen years of age, . . . . .	\$21 17
4.	Average based on the above (X., 2) for each child in the average membership of the public schools, . . . . .	\$25 10
5.	Aggregate returned as expended upon the public schools, <i>inclusive</i> of repairing and erecting schoolhouses (see X., 2 and VII., 7, 8 and 9), . . . . .	\$12,390,637 92
	Increase for the year, . . . . .	\$561,447 31
6.	Average based on the above (X., 5) for each child in the State between five and fifteen years of age, . . . . .	\$28 72
7.	Average based on the above (X., 5) for each child in the average membership of the public schools, . . . . .	\$34 05
8.	Percentage of valuation of 1896 appropriated for public schools, wages and board of teachers, transportation of pupils, fuel for the schools and care of fires and school-rooms (see VII., 1), . . . . .	.002 $\frac{9.6}{100}$
9.	Percentage of valuation of 1896 appropriated for public schools, not only for wages, etc., but also for repairing and erecting schoolhouses (see X., 5), . . . . .	.004 $\frac{7.2}{100}$

## ANALYSIS OF STATISTICAL RETURNS FOR 1896-97.

*Number of Schools.* — The number of schools that should be reported for the Commonwealth depends upon the unit that is adopted for the counting. This unit may be what is popularly known as a single school, or it may be a single class room. A school with twenty class rooms and twenty teachers therein, all under a single head or principal, would count as one school under the former unit and as twenty schools under the latter.

The number of schools reported under the former unit, it will be noted, is 4,501, or 38 less than last year, while the number reported under the latter is 9,557, or 404 more than last year. The reduced number of schools in the one case reveals the consolidation of schools that is going on, particularly in the rural districts, under which thinly attended, widely scattered and feebly supported schools are united in better equipped and more efficient central schools. This process of consolidation involves the transportation of children in many cases where they used to walk. The increased number of children thus transported means an increase in the aggregate expenditures for transportation. The school returns, as a matter of fact, show an increase in such expenditures over those of the preceding year of \$14,581.02. The increased number of schools in the other case harmonizes with such facts, gathered from the school returns, as these: that there were 15,014 more children in the public schools than the year before; and, again, that there were 568 more teachers employed than the year before.

## SCHOOL ATTENDANCE.

*Enumeration and Enrolment of Children.*

*I. Table showing the Number of Children between Five and Fifteen Years of Age in the State, also the Annual Increase for Ten Successive Years, from May 1, 1887, to May 1, 1896.*

	Number of Children.	Increase.		Number of Children.	Increase.
1887, . .	359,504	6,452	1892, . .	390,039	7,083
1888, . .	367,785	8,281	1893, . .	400,325	10,286
1889, . .	370,116	2,331	1894, . .	408,898	8,573
1890, . .	376,491	6,375	1895, . .	417,335	8,437
1891, . .	382,956	6,465	1896, . .	431,387	14,052
Average increase, . . . . .					7,833

*General Increase.* — The table shows an increase in enumeration for the year of 14,052. This is 6,219 in excess of the average increase during the past ten years, and is the highest annual increase ever reported in the history of the public schools. This enumeration is not made with the thoroughness shown in taking the decennial census of the State. The State census for 1895 gives 427,019 as the number between five and fifteen years of age, which is 9,684 in excess of the school census for the same year, but 4,368 less than the school census for 1896. The two censuses can never be taken under precisely the same conditions, so that some difference between their respective showings is unavoidable. As a rule, the several towns show an increase or a decrease that harmonizes with other facts reported by them. Occasionally, however, there is a jump in the figures that is out of fair proportion to the environment, and merits special notice, as in the case of the Lowell return.

*Increase in Lowell's Enumeration.* — The largest enumeration increase by far, both absolute and relative, is reported by Lowell, the last enumeration being 3,047 higher, or 23 per cent.

higher than that of the preceding year; while the last State enumeration is only 14,052 higher, or 3 per cent. higher than that of the preceding year. The increase reported for Boston is 1,409, — an addition of less than 2 per cent. to the enumeration of the year before.

The explanation given by Mr. Whitcomb, the superintendent of schools for Lowell, for this surprising increase, shows so clearly the pitfalls of census taking, and suggests so forcibly what is needed to make the census serviceable to the schools, that it is here quoted in full from his annual report of 1896 to the Lowell school committee: —

The number of children between the ages of five and fifteen in the city in May, 1895, as returned by the census enumerators, was 13,343; the number May 1, 1896, as given on page 23, is 16,390, — an increase so great as to require some explanation.

Section 3, chapter 46, of the Public Statutes, makes it the duty of the school committee to annually ascertain and record the names and ages of all children in the city between five and fifteen years of age on the first day of May. In compliance with this statute the committee elects enumerators, one for each ward, who are supposed to take the census as required, and whose returns are all bound up together in one book for a permanent record. This record is in almost daily use by the truant officers, and it is very desirable for many reasons that the census should be as accurate as possible. The returns for different years, however, have shown such unexplainable fluctuations as to make their accuracy a matter of just suspicion, and in the report for 1895 I outlined a plan for testing their correctness. This plan, which was tried in May of this year, was simply to obtain from teachers a complete enrolment of their schools May 1, and to compare this, name by name, with the census taken by the enumerators. To make the comparison even fairly accurate, it was, of course, necessary to have the names of pupils on the time books of the private schools as well as of those which are public; and I wish here to express my deep obligation to the teachers of the private schools, all of whom, with a single exception, gave me with great promptness the returns asked for. And they have, I trust, received their reward, as have the teachers of the public schools, in the finding and return to school of a considerable number of absentees.

The number of names returned by enumerators was 13,619, and the number of additional names reported by the teachers as actually in school May 1 was 2,771, making, as before stated, a total of

16,390. It is, therefore, certain that the census failed to reach fully 20 per cent. of the children of the city. Nor is this all. The 2,771 children missed by the enumerators were found by the teachers because they were in school; others not in school would have been still more likely to be skipped by the census takers, as this would be the class, and the only class, having an object in evading them. The value of the census is, therefore, much less than had been supposed. In some districts it reached but little more than half the children. It cost \$737, and it is very doubtful whether its value would justify the expense. As it is required by law, it must, I suppose, be continued, but certainly some means should be found to make it less costly and more nearly accurate.

The name-by-name comparison of the census with the school enrolment, however, seemed at first to show, on the other side, that children not attending school were far more numerous than had been supposed. Several hundred names were reported in the census which were not found in the school lists, and all such were placed in the hands of the truant officers for investigation. Unfortunately, the census comes just at the end of the school year, some of the returns not having been received until after the schools were closed for the summer vacation, and to postpone investigation until September was to lose nine tenths of its value. Could the census be taken in October its value would be increased tenfold, and a change in the law which would permit a change in the time of taking the census is well worth working for. Having, however, some of the returns in June, we made such use of them before vacation as the time permitted, and the work was promptly resumed in September, with the very gratifying result that the cases then really needing attention were found to be very few. Many were cases of mistaken identity, due to defective census returns. It is not surprising, for instance, that Esther Evelyn should not be easily found when her name was really Esther Evelyn Denison, and this is but a sample of many mistakes. Many cases were excusable on account of sickness, absence from the city, etc.; in others, pupils absent in June were in their places in September, and altogether less than a dozen have thus far been found to really need attention. I confess that the sight of the long list of names as I saw it in June disturbed me greatly, and I am now equally elated to find that the condition of affairs, instead of being worse than I had supposed, is really much better. The investigation, however, has done good, and the school enrolment should again be taken in May next, and the same comparisons made as before.



*II. Table showing the Number of Different Children of All Ages in the Public Schools, with the Annual Increase from May 1, 1888, to May 1, 1897.*

	Pupils of All Ages in Public Schools.	Increase.		Pupils of All Ages in Public Schools.	Increase.
1887-88,	358,000	Increase, 4,639	1892-93,	391,745	Increase, 8,528
1888-89,	363,166	Increase, 5,166	1893-94,	400,609	Increase, 8,864
1889-90,	371,492	Increase, 8,326	1894-95,	412,953	Increase, 12,334
1890-91,	376,986	Increase, 5,494	1895-96,	424,353	Increase, 11,400
1891-92,	383,217	Increase, 6,231	1896-97,	439,367	Increase, 15,014
Average increase, . . . . .					8,600

*Number of Children in the Public Schools.*—The increase for the year is 15,014, or 6,414 in excess of the average increase for the past ten years. The number of persons reported to have been in attendance upon the academies the past year is 5,418; in attendance upon other private schools, largely parochial, 63,370. Add these numbers to the number in the public schools, and the grand total of persons attending schools below the grade of colleges becomes 508,155.

*School Registers.*—The data of the foregoing table, as well as other attendance facts, are obtained by school committees from registers furnished to the public schools by the State. For some years the State register has been unsatisfactory. Better paper, a more convenient division of its pages and more satisfactory directions for keeping it are all much needed. There are, however, certain provisions in those amendments of the attendance and truancy laws which are to be reported to the Legislature of 1898, in obedience to an order from the Legislature of 1897, that, if adopted, will require important changes in the plan of the register. The present form needs to be tolerated, therefore, a little longer. At present the annual edition of the register (some 8,500 copies) is paid for out of the appropriation for office incidentals. More money than it is possible to spare from this appropriation is needed to furnish

a register that shall be alike convenient and helpful to the schools and creditable to the State.

*Private School Returns not Wholly Satisfactory.*—Facts about private schools are not so easily obtained as those about public schools. Some private schools do not keep satisfactory registers, while others keep no registers at all. There is, therefore, a certain amount of “estimating” in making up their statistics. Moreover, especially in a large city, a private school is occasionally overlooked by the school committee in its requests for information. While, therefore, the returns may be trusted to show in a large way the drift of the private school movement, they have not the detail and general accuracy of public school returns.

*Private School Returns for Sixty Years.*—In order that the relative growths of public schools and private schools may be known, the following table has been compiled from data in possession of the office. The figures are given for every tenth year from 1837, figures for the intermediate years being omitted.

III. Table showing by Decades the Private School Movement for Sixty Years.

YEARS.	Number of Academies (chiefly incorporated).	Number of Academy Pupils.	Number of Other Private Schools.	Number of Pupils in these Other Schools.	Total Number of Private Schools.	Total Number of Private School Pupils.
1837, . . .	—	—	—	—	854	27,266
1847, . . .	67	3,867	1,096	27,216	1,163	31,083
1857, . . .	69	4,346	674	18,935	743	23,281
1867, . . .	55	3,696	553	14,417	608	18,113
1877, . . .	44	3,939	385	15,228	429	19,167
1887, . . .	74	9,437	352	28,941	426	38,378
1897, . . .	53	5,418	365	63,370	418	68,788

*Comments on the Preceding Table.*—In 1837 one sixth of the children of the State were in private schools; in 1867,

only one fourteenth; in 1897, between one seventh and one eighth. The table shows a slight gain for private schools for the first ten years of the sixty, a marked falling off for the next thirty and a conspicuous gain for the last twenty. Notwithstanding this recent gain in private school attendance, the proportion of this attendance to the entire school attendance of the State is less than it was sixty years ago. Moreover, for the past three years, as the next table will show, the number of pupils in the public schools has been increasing relatively a little faster than the number in private schools.

*Private School Returns for the Last Ten Years.* — The figures that give the number of academies and the number of academy pupils for 1887 in the preceding table show a surprising rise from the corresponding figures for 1877 and an equally surprising fall to those for 1897.

The following table, showing the private school movement for the past ten years, gives an opportunity to explain these fluctuations.

*IV. Table showing the Private School Movement for the Past Ten Years.*

		Number of Academies (chiefly incorporated.)	Number of Academy Pupils.	Number of Other Private Schools.	Number of Pupils in these Other Private Schools.	Total number of Private Schools.	Total number of Private School Pupils.	Total number of Public and Private School Pupils.	Ratio of Private School Pupils to all the Pupils in the State.
1888,	. .	76	12,432	348	30,090	424	42,522	398,522	1 to 9.4
1889,	. .	89	16,043	396	37,620	485	53,663	416,829	1 to 7.8
1890,	. .	92	17,135	419	41,044	511	58,179	429,671	1 to 7.2
1891,	. .	93	16,483	378	42,547	471	59,030	436,016	1 to 7.4
1892,	. .	94	17,250	399	43,355	493	60,605	443,822	1 to 7.3
1893,	. .	94	17,359	350	44,991	444	62,340	454,085	1 to 7.2
1894,	. .	99	17,844	359	48,319	458	66,163	466,772	1 to 7.0
1895,	. .	59	5,484	341	59,204	400	64,688	477,641	1 to 7.4
1896,	. .	52	5,994	359	61,090	411	67,084	491,437	1 to 7.3
1897,	. .	53	5,418	365	63,370	418	68,788	508,155	1 to 7.4

*Comments on the Preceding Table.* — It will be noticed from this table that the number of academies, which had risen to 74

in 1887, and the number of academy pupils, which had risen to 9,437 the same year, keep increasing until they become respectively 99 and 17,844 for 1894. Upon looking into the causes of this apparent upward movement, it was found to be due to the gradual extension of the meaning of the word *academy* from its old-time sense of an incorporated secondary school, which, though under private management, was often spoken of as a quasi-public school, until the word came to include a variety of institutions, incorporated or otherwise, far removed in character from those academies whose separate statistics were wanted. Moreover, some institutions came to be reported under the head of academies whose students were beyond the ages usually found either in public schools or in corresponding private schools, and who, therefore, should not have been included in the returns. It should not be forgotten that the attendance facts which the school statistics of the State aim to present relate (1) to those children between eight and fourteen years of age whom the law requires to be schooled somewhere, either in a public school or in a legally equivalent private way, and (2) to those children and youth of other ages who attend the public schools or who receive their education in private schools of a corresponding grade or class. The statistics of higher institutions merit attention in a complete survey, but they should be kept by themselves.

*New Directions to School Committees.* — As a result of new directions to school committees, designed to correct the blurring of the two distinctions to which allusion has been made, the school returns for 1895 showed a drop in the number of academies from 99 to 59 and in the number of academy pupils from 17,844 to 5,484. The number of pupils in other private schools, however, rose from 48,319 to 59,204. The decrease of pupils in the one case (12,360) is nearly offset by the increase in the other (10,885). This return to the sharp old-time distinction between the incorporated academy and other private schools has shifted the attendance figures somewhat; but, as a result, attendance upon the academy proper has emerged from the swollen figures that had engulfed it, and it has become possible to compare it with that of the past. Many academies during the past sixty years have ceased to exist, some have been merged into high schools, and some that were

once flourishing are now barely able to live. On the other hand, new academies have been incorporated. Some of these new academies, as well as some of the old ones, have been well supported by money gifts; they have shown a progressive spirit; they have drawn to themselves large numbers of students from abroad as well as from home; and they were never more prosperous than to-day. To these vigorous schools must be attributed the fact that, notwithstanding the general decline of the academy in the presence of the phenomenal growth of the high school, attendance upon the academy has held its own during the past sixty years,—nay, has gained somewhat, though the ratio of gain has been far less than that of the public schools.

The total number of private school pupils reported for 1895 is 1,475 less than for 1894. This is probably due to excluding from the statistics certain higher institutions that do not belong there, for reasons that have already been given.

*Private School Returns of Boston.* — The striking difference between the returns of 1894 and those of 1895, as shown in the preceding table, is largely due to the returns of Boston. A great variety of private educational institutions has grown up in this city,—parochial schools of all grades; schools for language, music, elocution, stenography, typewriting and what not; schools and colleges for business or commercial training; industrial schools of various sorts; homes, missions and refuges that provide schools for wanderers, orphans, penitent females, the waifs and strays of humanity; to say nothing of schools that baffle the usual methods of classification. Some of these schools are robust and long-lived; others are weaklings,—schools of a year or a month only. While the membership of these schools is made up largely of persons who should be in the public schools if they were not in the private, it is made up also to a considerable extent of persons who have graduated from the public schools or have met the requirements of the law therein. Indeed, the membership of these private schools includes many adults,—more relatively than that of the public schools. What with violent fluctuations in parts of this membership, with go-as-you-please ways of keeping attendance records, with the difficulty of giving directions for gathering facts that shall meet the complexities and eccentricities of the

situation, and with a score of other perplexing and deterrent things, it is not surprising that the school authorities of Boston should take refuge from time to time in estimates instead of trying for an accurate census of the facts.

The following table gives the Boston returns for a period of ten years, including the years 1894 and 1895, to the striking difference of whose returns in the preceding table attention has just been called : —

*V. Table showing the Boston Private School Returns for Ten Years.*

	Number of Acad- emies.	Number of Acad- emy Pupils.	Number of Other Private Schools.	Number of Pupils in these Other Private Schools.	Total Number of Private Schools.	Total Number of Private School Pupils.	Total Number of Public and Pri- vate School Pu- pils.	Ratio of Private School Pupils to all the Pupils in the City.
1888, . .	20	7,895	32	773	52	8,768	74,768	1 to 8.5
1889, . .	36	11,463	83	3,253	119	14,716	80,498	1 to 5.5
1890, . .	38	12,000	85	3,300	123	15,300	84,093	1 to 5.5
1891, . .	38	12,000	85	3,300	123	15,300	84,098	1 to 5.5
1892, . .	38	12,000	85	3,300	123	15,300	84,263	1 to 5.5
1893, . .	38	12,000	85	3,300	123	15,300	85,853	1 to 5.6
1894, . .	38	12,000	85	3,300	123	15,300	87,404	1 to 5.7
1895, . .	3	131	76	11,294	79	11,425	85,753	1 to 7.5
1896, . .	4	389	80	11,405	84	11,794	87,575	1 to 7.4
1897, . .	3	208	76	12,231	79	12,439	92,291	1 to 7.4

*Comments on the Preceding Table.*—The census for 1888 must have been very incomplete, if that for 1889 is approximately correct. From 1890 to 1894 inclusive there are only estimates, which continue unchanged through the five years. In 1895 and thereafter the classification was changed, the list cleared of certain schools that had no right there, and greater pains taken with the count, with results as shown in the table. These results are believed to be a reasonable approximation to the facts. The ratio of private school pupils to all the pupils of the city is now 1 to 7.4, which is the same as the State ratio.

*Verification of Private School Returns.*—For the year end-

ing May 1, 1891, there were two sets of private school returns, — one from the school committees, in accordance with the annual custom ; and one from the private schools directly, in response to blanks and directions sent out from this office. The latter census required the withdrawal of an agent of the Board, Mr. George A. Walton, from his field of regular work for several months.

The following comparison of results obtained from these two sets of returns is interesting : —

	Returns to School Committees.	Returns to the State Board.
Number of private schools in the State, . . .	471	447
Number of private schools in Boston, . . .	123	137
Number of private school pupils in the State, . .	59,030	64,433
Number of private school pupils in Boston, . .	15,300	17,273

The local school boards found more private schools than the State, but the State found more pupils. That the State should find a larger number of pupils in a smaller number of schools is due to the fact that the State aimed to report the entire number of different pupils enrolled during the year, while the local committees, without concert of action, reported such numbers as they succeeded in getting, — either the entire enrolment of different pupils for the year, or the largest number at any one time during the year, or the entire membership at the time of inquiry, or their own estimates of such numbers, the aggregate being necessarily less than that obtained by the more uniform policy of the State.

It should not be overlooked that the returns of the school committee of Boston for 1891 are estimates only.

The State count for Boston in 1891 includes many schools that since 1895 have been excluded from the list, — schools whose students are, with few exceptions, adults. While such schools may not generally rank in importance and dignity with Boston University, the Massachusetts Institute of Technology and the various professional schools of the city that do not

usually appear in the city's returns of private schools, they deal with students of the same maturity, and so, like these institutions, should be excluded from any list that aims to show what proportion of pupils of ordinary school ages are in private schools.

On the whole, the private school statistics of the State may be received as a fair but not wholly acceptable approximation to the larger facts of the private school movement.

*Registers and Attendance Officers for Private Schools.*—The compulsory age limits are eight and fourteen. Every child between these limits is required by law to receive schooling somewhere. The school census required by law to be taken annually during the month of May, whatever else it aims to find out, should discover all the children at that time within the compulsory limits, as well as all who are destined to fall within these limits during the year preceding the next census. Every child within the compulsory years should be found enrolled, in due time, on the register of a public or that of a private school. If any such child is unlawfully out of school, it is the duty of the school committee to see that he is placed in school and to employ its attendance officers, if necessary, to assist in the discharge of that duty. It matters not, in the view of the law, whether the attendance is upon a public school or a private one. These attendance officers, therefore, should have access to the facts of attendance in all classes of schools whose pupils come, all or some of them, within the compulsory limits. The record of such facts should be as uniform and satisfactory in one class of schools as in another. To insure the keeping of uniform and satisfactory records in the public schools, the State furnishes registers and directions for keeping them. Would the State have similar records in the private schools? It cannot better secure them than by furnishing such schools with similar registers and directions.

The question has been raised whether this would not practically be contributing to the support of private schools out of public moneys. If so, it would be unconstitutional (see Amendment XVIII.). The sounder view, however, would seem to be that the State, in furnishing registers to private schools, is simply providing them with blanks, as it were, for the systematic gathering of those school statistics which the



State requires, — for facilitating, in short, the State's keeping of its own records. So, too, school committees should require their attendance officers to keep informed about children within the compulsory years, whether in public schools or in private, and to return such children, if they are illegally out of school, to their respective schools, whether public or private. It would not seem to be fair to construe any part of such service as contributing to that support of private schools by public taxation which the Constitution forbids. On the contrary, it would seem to be a sensible way, if not the only way, in which the State can enforce its own attendance policy. If private schools are incidentally helped by such registers and service, so much the better for the child, whose welfare, in whatever school he may be, public or private, it should be the spirit of the school laws to promote; and so much the better, too, for the State, whose integrity, through the education of all its children, it should be the spirit of the school laws to maintain.

*VI. Table showing the Attendance upon the Public Schools of Children whose Ages are between Five and Fifteen Years, also of those under Five and over Fifteen, with their Annual Increase and Decrease, from May 1, 1888, to May 1, 1897.*

	Pupils in School between Five and Fifteen Years of Age.	Increase	Pupils under Five Years.	Increase and Decrease.	Pupils over Fifteen Years.	Increase.
1888, .	327,279	Increase, 4,261	1,178	Decrease, 197	29,543	Increase, 575
1889, .	331,228	Increase, 3,949	1,130	Decrease, 48	30,758	Increase, 1,215
1890, .	336,100	Increase, 4,872	2,578	Increase, 1,448	32,814	Increase, 2,056
1891, .	339,953	Increase, 3,853	3,129	Increase, 551	33,904	Increase, 1,090
1892, .	345,215	Increase, 5,262	2,912	Decrease, 217	35,090	Increase, 1,186
1893, .	353,067	Increase, 7,852	3,283	Increase, 371	35,395	Increase, 305
1894, .	359,762	Increase, 6,695	3,742	Increase, 459	37,105	Increase, 1,710
1895, .	367,047	Increase, 7,285	4,469	Increase, 727	39,437	Increase, 2,332
1896, .	377,067	Increase, 10,020	5,630	Increase, 1,161	41,656	Increase, 2,219
1897, .	390,613	Increase, 13,546	6,868	Increase, 1,238	41,886	Increase, 230
Average increase, 6,759			Average increase, 549			Average increase, 1,291

*Comments on Table VI.*—During the past ten years the number of children under five years of age in the public schools has increased sixfold; the number over fifteen, less than two-fold. The former increase roughly measures the growth of the public kindergarten; the latter, the growth of the public high school, — for kindergarten pupils are generally under five years of age, while high school pupils are generally over fifteen.

*Comparison of School Committee Returns with those of the State Census, in Respect to Children between the Ages of Five and Fifteen.*—A State census may fairly be presumed to yield results more nearly accurate than three hundred and fifty-three separate school censuses. Thus the number of children between five and fifteen, May 1, 1895, according to the State census, was 427,019; according to the returns of school committees, 417,335. The returns of school committees for May 1, 1896, place the number at 431,387, or 4,368 more than the State census gives for May 1, 1895, and so may be regarded as reasonably near the true count.

*Comparison of School Committee Returns with those of the State Census, in Respect to Children between the Ages of Eight and Fourteen.*—It is not so easy to compare the two sets of returns when the number of children between eight and fourteen is considered. The State census gives this number as 247,491 for May 1, 1895. The school committee returns give the numbers within the compulsory years for a succession of years as follows:—

Between eight and fourteen, May 1, 1893, . . . . .	244,081
Between eight and fourteen, including persons between eight and fifteen in certain manual training towns, May 1, 1894, . . . . .	265,182
Between eight and fourteen, May 1, 1895, . . . . .	261,642
Between eight and fourteen, May 1, 1896, . . . . .	249,750

It should be noted that for 1894 the compulsory years are eight and fourteen for the State in general, but eight and fifteen “in every city and town where opportunity is furnished, in connection with the regular work of the public schools, for gratuitous instruction in the use of tools or in manual training, or for industrial education in any form,” and eight and fourteen in other places for 1894. The lifting of the compulsory

limit from fourteen to fifteen for the vague reasons given in the law (section 1, chapter 498, Acts of 1894) has proved an embarrassing thing for some of the towns and cities. The nature of this embarrassment is fully explained on page 67 of the sixtieth report. So unsatisfactory have been the returns by school committees of the additional number of persons between fourteen and fifteen years of age in places that provide for manual training, that, although such returns have been called for during the last three years, they have been included in the enumeration for May 1, 1894, only.

For May 1, 1895, the reported number is too large by 18,000. It should have been 243,642. The mistake occurred in the Boston returns. This city reported the following numbers for four successive years:—

Between eight and fourteen, May 1, 1893, . . . .	41,198
Between eight and fifteen, May 1, 1894, . . . .	52,704
Between eight and fourteen, May 1, 1895, . . . .	53,316
Between eight and fourteen, May 1, 1896, . . . .	36,332

The figures for 1895, as explained by the officer who furnished them to the secretary of the Boston school committee, were by an unfortunate transposition given as 53,316, instead of 35,316; hence the error of 18,000. The mistake was not discovered until a year later, when an explanation was sought for the rather startling drop for May 1, 1896. The corrected returns from Boston are not, however, satisfactory, since some exceedingly improbable figures are reported. It is not likely, for instance, that in the growing city of Boston the number of persons between eight and fourteen has fallen from 41,198 for May 1, 1893, to 36,332 for May 1, 1896. Moreover, the State census gives the number between eight and fourteen in Boston for May 1, 1895, as 45,568, which is 9,236 more than the school committee returns for a year later. The secretary of the Boston school committee fully realizes the effect of untrustworthy figures from so large a city upon the general accuracy of the State returns, and has given this office most prompt, earnest, and helpful co-operation in its efforts to guard against the errors from which statistics are by no means exempt. The secretary of the Boston School Board, like the secretary of the State Board, is dependent on others for most

of the figures he furnishes the public. If the figures are false at their fountains, neither can correct them. Perhaps a frank statement of the respects wherein statistics fail and of the importance of guarding against such failures hereafter will lead to the greater degree of accuracy desired.

Notwithstanding the inaccuracies that occur in the census returns of school committees, the aggregate numbers reported are far nearer the corresponding figures of the State census than there was reason to expect.

### REGULARITY OF ATTENDANCE.

*VII. Table showing the Average Membership and Yearly Increase of Membership of the Public Schools; also the Average Attendance, the Yearly Increase and the Ratio of Attendance for Ten Years, from May 1, 1888, to May 1, 1897, inclusive.*

	MEMBERSHIP —		ATTENDANCE —		
	Average.	Increase of Average.	Average.	Increase of Average.	Ratio of, to Membership.
1888, . . .	293,941	2,402	264,723	2,564	.90057+
1889, . . .	299,537	5,596	270,851	6,128	.90423+
1890, . . .	303,524	3,987	273,910	3,059	.9024+
1891, . . .	307,953	4,429	278,602	4,692	.9045+
1892, . . .	313,214	5,261	283,648	5,046	.9056+
1893, . . .	320,862	7,648	290,801	7,153	.9063+
1894, . . .	328,455	7,593	299,069	8,268	.9105+
1895, . . .	341,671	13,216	313,693	14,624	.9181+
1896, . . .	349,336	7,665	321,685	7,992	.9208+
1897, . . .	363,866	14,530	334,939	13,254	.9205+
		Av., 7,233		Av., 7,278	

*Comments on Table VII.* — From Table II. it appears that the increase in total membership over that of the preceding year is 15,014. The increase in average membership is shown

by Table VII. to be 14,530, which is only 484 less than the increase in total membership. The increase in average attendance is 13,254, which is 1,276 less than the increase in average membership, indicating a slight falling off in the percentage of attendance for the State, but not enough to change the figures commonly used to express the ratio of attendance. That ratio is 92 per cent. this year, as last, — the highest ever attained in the history of our public schools.

*VIII. Table showing by Counties the Number of Towns whose School Attendance, based on the Average Membership, equals or exceeds Ninety Per Cent. for the Year 1896-97.*

COUNTIES.	Number of Towns in County.	Number of Towns in County, At- tendance over 90 Per Cent.	COUNTIES.	Number of Towns in County.	Number of Towns in County, At- tendance over 90 Per Cent.
Barnstable, .	15	12	Hampshire, .	23	19
Berkshire, .	32	14	Middlesex, .	54	52
Bristol, . .	20	10	Nantucket, .	1	1
Dukes, . .	7	5	Norfolk, . .	27	23
Essex, . .	35	29	Plymouth, .	27	24
Franklin, . .	26	23	Suffolk, . .	4	3
Hampden, . .	23	18	Worcester, .	59	55
Totals, . . . . .				353	288

*Diversity of Practice in dropping Names from Membership Rolls.* — The value of Table VIII. is impaired by a diversity of practice in the State in dropping the names of pupils from the rolls of membership after a season of unexplained absence. Boston retains a name on the roll until it is certainly known that the pupil has withdrawn, but after an unexplained absence of a month the name is dropped. Most of the towns in the State, however, follow the direction of the State register, which is to drop the pupil's name after a week of

unexplained absence. Neither rule affects the average attendance; but the Boston rule lifts the average membership more than the State rule, and so widens the gap between the average membership and the average attendance, — the two facts that determine the percentage of attendance. In this way the Boston attendance might, in fact, be better than that of the State, and yet the Boston percentage fall below that of the State. The attendance and truancy bill prepared for the consideration of the Legislature aims to correct this diversity of practice. The Boston rule seems to be more distinctly in the interest of the pupil than the State rule. It does not favor high percentages of attendance, but it puts a premium on training the pupil to announce his purpose beforehand, if he is intending to leave school; on finding out promptly, in case of unexplained absence, whether the pupil has withdrawn or not; and on bringing him back promptly if he is found to be absent without good reason. In short, it puts a premium on following up the absentee, while the State rule dismisses him too summarily from the teacher's oversight. Suffolk's place in the table would be much higher if the State rule were less indulgent.

*Diversity of Practice in registering Absences.* — A high percentage of attendance is creditable only as it shows a corresponding high attendance. Some schools count their pupils as present if they simply report for a few minutes in the morning. Others do not count them as present unless they have attended at least half the session. Obviously it is possible for the former class of schools to have the higher percentage, and for the latter to have the better attendance. A uniform practice of counting only those pupils as present whose attendance covers at least half the session, while working hardships, as it is sometimes alleged, to pupils who are struggling for perfect attendance, while they are under obligation to be absent now and then for substantially an entire session, would promote attendance on the one hand and improve the basis for the comparison of percentages of attendance on the other. Any policy of treating pupils as constructively present when they are really absent cannot be other than a questionable one, not only for the reasons mentioned, but possibly, in some cases, for moral reasons as well.

*IX. Table showing the Number of Towns in the Several Counties the Ratio of whose School Attendance falls below Ninety, also the Percentage of this Number to the Number of Towns in the County.*

COUNTIES.	Number of Towns In County.	Number of Towns below 90 Per Cent.	Ratio to Whole Number of Towns in County	COUNTIES.	Number of Towns In County.	Number of Towns below 90 Per Cent.	Ratio to Whole Number of Towns in County.
Barnstable, .	15	3	.20	Hampshire, .	23	4	.17
Berkshire, .	32	18	.56	Middlesex, .	54	2	.04
Bristol, . .	20	10	.50	Nantucket, .	1	—	—
Dukes, . . .	7	2	.28	Norfolk, . .	27	4	.15
Essex, . . .	35	6	.17	Plymouth, .	27	3	.11
Franklin, . .	26	3	.12	Suffolk, . .	4	1	.25
Hampden, . .	23	5	.22	Worcester, .	59	4	.07
Totals, . . . . .					353	65	.18

*Comments on Table IX.* — This table should be interpreted in the light of the comments made upon the preceding table. The number of towns whose percentage of attendance falls below 90 is 65, as against 66 last year; and the ratio of the number of such towns to the entire number of towns in the State is 18 per cent., as against 19 per cent. last year.

*X. Table of the Several Counties, arranged according to the Percentages of their Number of Towns having Less than Ninety Per Cent. of Attendance.*

COUNTIES.	Per Cent.	COUNTIES.	Per Cent.
Nantucket, . . . .	.00	Essex, . . . .	.17
Middlesex, . . . .	.04	Barnstable, . . . .	.20
Worcester, . . . .	.07	Hampden, . . . .	.22
Plymouth, . . . .	.11	Suffolk, . . . .	.25
Franklin, . . . .	.12	Dukes, . . . .	.28
Norfolk, . . . .	.15	Bristol, . . . .	.50
Hampshire, . . . .	.17	Berkshire, . . . .	.56

*Comments on Table X.*—Counties with sparsely settled regions, where the conditions of travel to and from school are often hard, show a trend towards the foot of this list, — a trend that is hastened if the schools are poor, or if popular interest in the schooling of children is at a low ebb. The position of Suffolk in tables whose data are based on percentages of attendance has already been explained.

*XI. Table showing the Names of the Towns whose Average Attendance for the Year 1896-97 fell below Eighty Per Cent. of the Membership.*

TOWNS.	Per Cent. of Attendance.	TOWNS.	Per Cent. of Attendance.
New Ashford, . . .	.79	Newbury, . . . .	.72

*Comments on Table XI.*—The chairman of the New Ashford committee explains the low percentage of that town as due to the sickness “a good deal of the time” of some of the pupils. The single school of this town is a small one, the whole number of different pupils in attendance being 22, the average membership 19 and the average attendance 15. A slight falling off in attendance causes a heavy fall in percentage.



A member of the Newbury committee writes substantially that truancy cases give them some trouble, — cases from ignorant or degraded families less, however, than others. “Half our truancy cases, if pushed, would take us to the superior court.” At the time of his writing, however, there was no truancy. “Half an inch of snow in the highway would give us 10 per cent. absence. Excuse, no shoes. Advice (gratis) to the committee, ‘Mind your own business.’” Newbury’s percentage of attendance a year ago was 85.

*Certain Causes of Absenteeism that should be removed.* — The frank and graphic hints at certain causes of absenteeism which the letter just quoted contains are worthy of general consideration, because the evils complained of are found in varying degrees in many towns. Perhaps no town is entirely free from them. The causes referred to, expressed in other words, are the following: (1) indifference to the benefits of school; (2) a lack of sturdiness in overcoming weather obstacles; (3) a lack of suitable clothing; and (4) an absence of respect for the constituted authorities. If a town cares to have a good reputation as a town to live in, it cannot afford to be indifferent to its schools. Its better elements should take concerted action against the stagnation and loss that such indifferentism threatens. For such a town these should be burning questions: —

1. Are the schools themselves as attractive and profitable as they should be? If not, what is the remedy?

2. Is there a decline in the ambition, the self-reliance, the sturdiness, of young people in the presence of weather and other obstacles to school attendance, or are traits like these, so genuine to true mettle, yet to be developed in them?

3. Is the problem of getting shoeless, hatless, coatless children into school so serious a one that its solution must be abandoned in an intelligent Massachusetts town?

4. Shall ignorant people be suffered to neglect, or lawless people to disobey, the plain, long-tried and almost universally approved mandate of the law, that children shall receive at least a certain minimum of schooling?

If there is a town in the State that is losing ground in grappling with these and other kindred school problems, the second state of that town cannot but be worse than the first.

## HIGH SCHOOLS.

*XII. Table showing the Number of High Schools in the State for Ten Years, from 1888 to 1897, with the Number of Pupils attending; also their Ratio to the Whole Number of Children in All the Schools.*

YEAR.	Schools.	Pupils.	Ratio of Pupils in H. S. to School Enrolment.	YEAR.	Schools.	Pupils.	Ratio of Pupils in H. S. to School Enrolment.
1888, .	230	22,785	.063	1893, .	247	28,582	.072
1889, .	236	24,139	.066	1894, .	255	30,540	.076
1890, .	241	25,317	.068	1895, .	252	32,752	.079
1891, .	244	26,294	.069	1896, .	257	34,323	.080
1892, .	242	27,482	.071	1897, .	262	36,228	.083

*Continued Gain in the High School Enrolment.*—The remarkable annual gain in the ratio of the high school enrolment to the total school enrolment which the foregoing table exhibits is still kept up. This enrolment is now one twelfth of the total enrolment. Should all the pupils in the public schools pass through the high school, the high school enrolment, in towns whose schools are divided into twelve grades, eight elementary and four secondary, would not exceed four twelfths, or 33 per cent., of the total enrolment; while in towns of thirteen grades, nine elementary and four secondary, it would not exceed four thirteenths, or 31 per cent., of the total enrolment. That is to say, the present high school enrolment (8 per cent.) is about one fourth of the highest high school enrolment possible (31 to 33 per cent.). This is equivalent to saying that about 25 per cent. of the pupils in the public schools become in due season members of the high school.

In his last three reports the secretary has taken pains to point out and correct a persistent and injurious use of this fact that but 8 per cent. of the public school pupils are in any one year enrolled in the high school membership. "Ninety-two per cent. of our children," say many intelligent people whose intelligence would set them right if they would but reflect upon

the true significance of an 8 per cent. enrolment, — “ ninety-two per cent. of our boys and girls never reach the high school.” On the contrary, the facts show that while the percentage of enjoyment of high school advantages is at least 25 for the State, there are many towns in which it rises to 40, 50, 60 and even 70 per cent.

During the past fifteen years the population of the State has increased 40 per cent. ; the total public and private school enrolment, 41 per cent. ; the high school enrolment, 88 per cent. In other words, while the gain in the total school enrolment has kept barely ahead of the gain in population, the gain in high school enrolment has been more than double the gain in population.

*The Smaller the Towns the Larger the High School Enrolment.* — The four following tables show that, on the whole, the proportion of high school pupils to the entire number of pupils in the public schools rises rapidly as the towns diminish in size. In each table the places are arranged in the order of their population. It will be interesting to note how towns of about the same size vary in the facts of school enrolment. Then follow, in successive columns, (1) the total enrolment in all the public schools, including the high school ; (2) the enrolment in the high school ; (3) the ratio which the high school enrolment bears to the total enrolment ; and (4) what may be called the percentage of enjoyment, — that is, the percentage of the pupils in the public schools that are destined at some time to enjoy the advantages of the high school. This percentage of high school enjoyment, as given in these tables, is assumed to be three times that of the high school enrolment, although in most towns it is a little more than this.

*XIII. High School Enrolment and Enjoyment in the Ten Largest Cities.*

CITIES.	Population.	Total Enrolment.	High School Enrolment.	Percentage of High School Enrolment.	Percentage of High School Enjoyment.
Boston, . .	496,920	79,852	4,821	6.0	18
Worcester, . .	98,767	18,739	1,932	10.3	31
Fall River, . .	89,203	15,162	666	4.4	13
Lowell, . .	84,367	13,465	925	6.9	21
Cambridge, . .	81,643	13,992	1,144	8.2	25
Lynn, . .	62,354	10,322	777	7.5	23
New Bedford, . .	55,251	8,298	462	5.6	17
Somerville, . .	52,200	10,582	792	7.5	23
Lawrence, . .	52,164	7,343	400	5.4	17
Springfield, . .	51,522	8,814	484	5.5	16
Totals, . .	—	186,569	12,403	6.7 Av.	20 Av.

*XIV. High School Enrolment and Enjoyment in the Ten Largest Towns.*

TOWNS.	Population.	Total Enrolment.	Total High School Enrolment.	Percentage of High School Enrolment.	Percentage of High School Enjoyment.
Brookline, . .	16,164	3,050	303	9.9	30
Melrose, . .	11,965	2,251	269	11.9	36
Hyde Park, . .	11,826	2,054	288	14.0	42
Clinton, . .	11,497	1,945	132	6.8	20
Weymouth, . .	11,291	2,291	215	9.4	28
Westfield, . .	10,663	2,058	248	12.0	36
Peabody, . .	10,507	1,791	143	8.0	24
Amesbury, . .	9,986	1,293	159	12.3	37
Framingham, . .	9,512	2,225	269	12.1	36
Leominster, . .	9,211	1,849	189	10.2	31
Totals, . .	—	20,807	2,215	10.6 Av.	32 Av.

*XV. High School Enrolment and Enjoyment in the Ten Largest Towns whose Population is Less than 5,000.*

TOWNS.	Population.	Total Enrolment.	High School Enrolment.	Percentage of High School Enrolment.	Percentage of High School Enjoyment.
Williamstown, .	4,887	955	65	6.8	20
Hingham, . .	4,819	838	132	15.8	47
Great Barrington,	4,794	973	105	10.8	32
Easthampton, .	4,790	1,037	99	9.5	29
Amherst, . .	4,785	833	166	19.9	60
Bradford, . .	4,736	996	82	8.2	25
Ipswich, . .	4,720	899	73	8.1	24
Reading, . .	4,717	954	171	17.9	54
Bridgewater, .	4,686	767	83	10.8	32
Canton, . .	4,636	654	65	10.0	30
Totals, .	—	8,906	1,041	11.7 Av.	35 Av.

*XVI. High School Enrolment and Enjoyment in All Towns in which the Percentage of High School Enjoyment rises above 50.*

TOWNS.	Population.	Total Enrolment.	High School Enrolment.	Percentage of High School Enrolment.	Percentage of High School Enjoyment.
Concord, . .	5,175	902	190	21.0	63
Amherst, . .	4,785	833	166	19.9	60
Reading, . .	4,717	954	171	17.9	54
Nantucket, . .	3,016	350	80	22.8	69
Dennis, . .	2,545	470	89	18.9	57
Merrimac, . .	2,301	472	78	16.5	50
Lancaster, . .	2,180	388	75	19.3	58
Upton, . .	2,150	311	69	22.2	67
Ashburnham, .	2,148	451	89	19.7	59

*XVI. High School Enrolment, etc. — Concluded.*

TOWNS.	Population.	Total Enrolment.	High School Enrolment.	Percentage of High School Enrolment.	Percentage of High School Enjoyment.
Ayer, . . .	2,101	500	83	16.6	50
Acton, . . .	1,978	334	61	18.3	55
Duxbury, . . .	1,966	326	69	21.2	64
Kingston, . . .	1,746	352	82	23.3	70
Weston, . . .	1,710	286	57	19.9	60
Hadley, . . .	1,704	300	68	22.7	68
Essex, . . .	1,587	310	52	16.8	50
Shelburne, . . .	1,560	303	56	18.5	55
Norwell, . . .	1,540	288	49	17.0	51
Hopedale, . . .	1,377	298	52	17.4	52
Conway, . . .	1,304	238	44	18.5	55
Sterling, . . .	1,218	230	53	23.0	69
Orleans, . . .	1,198	184	58	31.5	95
Sudbury, . . .	1,141	179	40	22.3	67
Littleton, . . .	1,136	231	46	19.9	60
Edgartown, . . .	1,125	176	33	18.8	56
Southampton, . . .	1,054	230	45	19.6	59
Cottage City, . . .	1,038	187	38	20.3	61
Topsfield, . . .	1,033	155	33	21.3	64
Mattapoisett, . . .	1,032	158	35	22.2	67
Ashfield, . . .	1,013	183	39	21.3	64
Princeton, . . .	952	148	36	24.3	73
Nahant, . . .	865	136	34	25.0	75
Ashby, . . .	804	142	26	18.3	55
Bolton, . . .	797	142	37	26.1	78
Bernardston, . . .	778	183	72	55.4	—
Totals, . . .	—	11,330	2,305	20.3 Av.	61 Av.

*Conclusions from the Four Preceding Tables.*—Conclusions drawn from the four foregoing tables, particularly from the last, with reference to percentages of high school enrolment and enjoyment, need to be modified somewhat by certain facts that do not appear in the lists. In a few cases the presence of tuition pupils from other towns swells the high school membership. Occasionally, as at Bernardston, the school is not only the local high school but the academy of a larger district. Not unfrequently the high school of a small town admits pupils that, in larger places with better graded schools, would remain a while longer in the grammar grades. But, after all such allowances have been made, it remains true that there are many towns in Massachusetts where half the school population or more succeed in entering the high school at some time and getting some measure of instruction from it.

The following summary, based on the four preceding tables, shows impressively how the enrolment increases relatively as the towns diminish in population:—

	Percentage of High School Enrolment.	Percentage of High School Enjoyment.
Ten largest cities, . . . . .	6.7	20
Ten largest towns, . . . . .	10.6	32
Ten largest towns under 5,000 inhabitants each,	11.7	35
Thirty-five towns * of highest enrolment, . .	20.3	61
The State, . . . . .	8.3	25

While the larger places show the smaller high school enrolments, it must not be forgotten that, on the whole, their standards of admission are higher, their high school instruction more exacting, and their high school pupils older than in the smaller places. Their buildings are better, their equipment richer, their courses of study more varied and their teachers more numerous and better qualified for their work. Moreover, the instruction given in the upper grammar grades in many of

\* Thirty of them under 2,500 inhabitants each.

the larger places is superior to that given in the lower high school grades in some of the smaller places. Indeed, it seems, in one aspect of the situation, as if the pressure to enjoy high school advantages were in inverse ratio to their quality.

*XVII. Table showing the Distribution of the High Schools among the Several Counties of the State; also what Ratio of the Whole Population has Access to High Schools at Home.*

COUNTIES.	Number of Towns in County.	Number of Towns required to keep High Schools.	Number of Towns having High Schools.	Number of High Schools.	Ratio of Population having Access to High Schools.
Barnstable, . . . .	15	7	12	13	94.1 per cent.
Berkshire, . . . .	32	8	12	12	85.8 "
Bristol, . . . .	20	10	11	13	93.9 "
Dukes, . . . .	7	—	3	3	74.6 "
Essex, . . . .	35	22	28	29	97.8 "
Franklin, . . . .	26	4	9	10	65.2 "
Hampden, . . . .	23	8	9	9	91.0 "
Hampshire, . . . .	23	6	11	13	85.9 "
Middlesex, . . . .	54	34	47	50	98.3 "
Nantucket, . . . .	1	1	1	1	100.0 "
Norfolk, . . . .	27	20	27	29	100.0 "
Plymouth, . . . .	27	14	19	19	92.9 "
Suffolk, . . . .	4	4	3	13	98.6 "
Worcester, . . . .	59	31	46	48	95.8 "
	353	169	238	262	95.7 Average.

*Comments on Table XVII.*—Every town in the State is required now by law to furnish free high school tuition to its properly qualified children. It must furnish such tuition in its own high school, if it has one; otherwise, in the high school of some other town. The table, therefore, simply shows what proportion of the people have access to high schools at home. There are 119 towns, all of them quite small, without high schools of their own. There are 70 towns not required to maintain high schools of their own, that nevertheless have them. Of the entire population of the State (2,500,183 in 1895),



2,393,992 are in high school towns and 106,191 in non-high school towns. In other words, 95.7 per cent. of the population have high schools at home, while 4.3 per cent. must depend upon the high schools of neighboring towns.

*New High Schools.*—The number of high schools reported the present year is 262, as against 258 last year,—a gain of 4. Nine new high schools are returned and 4 old ones are discontinued. The new schools returned are as follows:—

TOWNS.	Number of Teachers.	Number of Pupils.	Length of Schools.	Salary of Principal.
Cottage City, . . . . .	2	38	8-17	\$810 00
Enfield, . . . . .	1	16	8-15	437 50
Leicester (Academy), . . . .	4	71	9-15	1,700 00
Ludlow, . . . . .	1	14	10-	700 00
Millis, . . . . .	2	24	10-	1,000 00
Newbury (united with Dummer Academy).	3	8	9-10	200 00
Orleans, . . . . .	2	58	9-10	917 50
Topsfield, . . . . .	2	33	10-	800 00
Wayland, . . . . .	2	17	9-5	720 00
Total, . . . . .	19	279	—	—

Of these 9 schools, 2 are academies,—those at Leicester and Newbury. The Leicester Academy is an old and well-known school. The school committee did not see fit to return it as a high school a year ago; consequently their return of it for the present report puts it into the list of new high schools. The town pays the salary of its principal and meets some of its other expenses. This academy answers the purpose of a public high school, although it is not under the order and superintendence of the school committee. The town, in contributing to its support, doubtless acts under chapter 94, Acts of 1895, which, though unrepealed, has been pronounced by the Attorney-General unconstitutional (see pages 147-150 of last year's report of the Board).

The Newbury high school is a part of Dummer Academy, — another old and well-known institution. According to the statement of the Newbury school committee, the course of study, the examinations and admissions, the purchase of supplies and all expenses of Newbury pupils in connection with this academy are under the control of the school committee, as the law requires.

The Cottage City high school has an English course of three years and an English and Latin course of four years. The principal is in charge of the grammar school also.

Wayland has not yet decided what courses to offer, but recommendations not yet acted on favor a three years' English course and courses of four years for those aiming for college and the normal school.

Topsfield and Orleans offer high school courses of three years.

Enfield, Ludlow and Millis offer high school courses of two years. These three schools have grammar grades in the same room with the high, and are taught by the high school teacher. The principal of the Millis high school is also superintendent of schools. A high school that offers courses only two years long, and is so well graded and taught that its graduates may enter without loss of time upon the third and fourth years' work of some good outside high school, undoubtedly serves a valuable local purpose. The special but perhaps not insuperable difficulty of such a school is to hold itself up to the standard of the school it aims to feed.

*Discontinued High Schools.* — The list of high schools reported as discontinued during the school year of 1896-97 is as follows : —

TOWNS.	Number of Teachers.	Number of Pupils.	Length of School.	Salary of Principal.
Boxford, Barker Free School, .	1	24	8-15	\$1,200 00
East Longmeadow, . . .	1	22	9-	540 00
Northfield, . . . . .	1	22	8-15	400 00
Petersham, . . . . .	1	23	7-10	375 00
Sunderland, . . . . .	1	22	8-10	408 00
Total (5 schools), . . .	5	113	-	-

The Barker Free School is not under the order and superintendence of the school committee, and so is properly dropped from the list, although it continues to serve as a free high school for those pupils of Boxford to whom it is accessible.

Boxford recently declined to pay for high school tuition in an outside high school, on the ground that the town had practically a high school of its own, or a school of corresponding grade, and so was exempt by law from such payment of tuition; but the decision of the superior court, in a test case, was against the town. An appeal has been taken by the town to the supreme court.

The East Longmeadow committee think it is better for their qualified pupils to attend the Springfield high school, where they can profit by accommodations, equipment and teaching far beyond the ability of the town to equal within its own borders. The expense of the new policy is a little larger than that of the discontinued high school, but much less than that of a really satisfactory high school at home.

The Northfield, Petersham and Sunderland high schools were all small. It was difficult to hold them up to fair work. Children were admitted to the Petersham high school from the seventh grade, and entered upon high school work before they were tolerably grounded in that which should precede.

*Approval of High Schools for State Reimbursement.* — The Board of Education is not required by law to approve high schools. To this statement there is a single exception. Reimbursement of high school tuition to certain towns by the State is conditioned upon the approval by the Board of the high schools where such tuition is paid. The law is construed in the spirit that prompted its passage. As a rule, the high schools approved under it rank with the best in the State. Sometimes, however, the only high school accessible for tuition purposes is a small one, with scant equipment and taught by one teacher only, or possibly by two. However faithful the teaching in such a school, it cannot be called a fully satisfactory one. If it is approved, the approval should be regarded as a qualified and provisional one, — an approval granted because the high school is the only one available; either that must be attended, or none at all.

*The Approval of High Schools in General.*—While the Board is under no obligation to approve high schools except for purposes of State reimbursement of tuition, it has approved a certain number of them in accordance with a policy explained on pages 133 and 134 of the fifty-ninth report. For a classification of the high schools of the State, with a list of such as have been approved, the sixtieth report, pages 139–150, should be consulted. The policy of approving high schools was adopted several years ago for certain normal school admission purposes. Inasmuch as ability to pass an examination in high school subjects will now admit to the normal school any high school graduate or any person who claims a training equivalent to that of a high school graduate, it is no longer necessary to approve high schools for any normal school purpose. If they meet normal school requirements, that takes the place of the only approval the Board once tried to give.

*State Reimbursement of High School Tuition.*—The law authorizing the reimbursement of high school tuition to towns whose valuation is less than \$500,000 went into effect April 4, 1895. The following is a synopsis of its workings for the past three years :—

PERIOD COVERED.	Number of Towns.	Number of Tuition Pupils.	High Schools Approved.	Average Tuition.	Amount Reimbursed.
April and June, 1895, . . .	28	112	29	\$23 42	\$840 41
September, 1895, to June, 1896,	38	143	29	31 05	3,873 05
September, 1896, to June, 1897,	43	219	33	31 72	6,121 72

The appropriation to meet the requirements of the tuition law for 1897 was \$5,000. It is obvious, from the synopsis just given, that a larger sum will be needed for 1898.

The following table gives details for the school year ending with June, 1897 :—

*XVIII. Table showing High School Tuition Reimbursements under Chapter 212, Acts of 1895.*

TOWNS.	Number of Pupils.	High Schools Attended.	Rate per Year.	Amounts.
Alford, . .	1	Great Barrington, . .	\$30 00	\$27 00
Berkley, . .	6	Taunton, . . . .	50 00	300 00
Berlin, . .	15	Clinton, . . . .	24 00	360 00
Berlin, . .	5	Hudson, . . . .	20 00	86 69
Berlin, . .	5	Northborough, . .	24 00	120 00
Blandford, . .	2	Westfield, . . . .	50 00	100 00
Boxborough, . .	4	Acton, . . . .	30 00	120 00
Boxborough, . .	2	Concord, . . . .	42 00	84 00
Carlisle, . .	3	Concord, . . . .	42 00	126 00
Charlemont, . .	2	Athol, . . . .	24 00	40 00
Charlemont, . .	4	North Adams, . .	30 00	85 00
Charlemont, . .	1	Ashfield, . . . .	15 00	10 00
Clarksburg, . .	1	North Adams, . .	30 00	15 00
Dana, . . . .	8	New Salem, . . . .	22 50	157 50
Dana, . . . .	1	Winchendon, . . . .	25 00	25 00
Egremont, . .	19	Great Barrington, . .	30 00	465 00
Erving, . . .	12	Orange, . . . .	25 00	300 00
Erving, . . .	7	Greenfield, . . . .	30 00	210 00
Erving, . . .	1	Montague (Turners Falls).	18 00	18 00
Florida, . . .	1	North Adams, . . . .	30 00	20 00
Gill, . . . .	6	Montague (Turners Falls).	18 00	87 00
Gill, . . . .	1	Bernardston (Powers Institute).	21 00	7 00
Goshen, . . .	3	Ashfield, . . . .	15 00	40 00
Greenwich, . .	6	Hardwick, . . . .	15 00	90 00
Hancock, . . .	1	Pittsfield, . . . .	36 00	25 20

## XVIII. Table showing High School Tuition, etc. — Continued.

TOWNS.	Number of Pupils.	High Schools Attended.	Rate per Year.	Amounts.
Hawley, . . .	1	Ashfield, . . .	\$15 00	\$15 00
Lakeville, . . .	5	Middleborough, . . .	36 00	171 75
Lanesborough, . .	3	Adams, . . .	15 00	45 00
Leverett, . . .	5	Montagne (Centre), .	18 00	90 00
Leverett, . . .	2	Amherst, . . .	34 50	40 25
Leyden, . . .	3	Greenfield, . . .	30 00	90 00
Monterey, . . .	2	Great Barrington, .	30 00	52 50
Mt. Washington, .	1	Great Barrington, .	30 00	28 50
New Braintree, .	1	North Brookfield, .	10 00	10 00
New Braintree, .	2	Hardwick, . . .	15 00	20 00
Oakham, . . .	1	Boston, . . .	82 50	41 25
Oakham, . . .	3	Ware, . . .	40 00	94 00
Oakham, . . .	4	Barre, . . .	15 00	60 00
Paxton, . . .	2	Worcester (English), .	40 00	50 00
Pelham, . . .	3	Amherst, . . .	34 50	103 50
Phillipston, . . .	2	Athol, . . .	24 00	24 00
Plainfield, . . .	1	Northampton, . . .	45 00	45 00
Richmond, . . .	9	Pittsfield, . . .	36 00	255 60
Rowe, . . .	1	North Adams, . . .	30 00	30 00
Russell, . . .	} 1 {	Westfield, . . .	50 00	50 00
Russell,* . . .		Westfield, . . .	50 00	25 00
Sandisfield, . . .	1	Lee, . . .	30 00	30 00
Savoy, . . .	1	Adams, . . .	15 00	15 00
Shutesbury, . . .	1	Amherst, . . .	34 50	34 50
Shutesbury, . . .	3	New Salem, . . .	22 50	67 50
Southampton,† .	1	Northampton, . . .	45 00	45 00

XVIII. *Table showing High School Tuition, etc. — Concluded.*

TOWNS.	Number of Pupils.	High Schools Attended.	Rate per Year.	Amounts.
Southampton, .	8	Easthampton, . .	\$25 00	\$200 00
Southampton, .	1	Westfield, . . .	50 00	50 00
Southampton, .	1	Northampton, . .	45 00	45 00
Southwick, . .	6	Westfield, . . .	50 00	300 00
Sunderland,* .	1	Amherst, . . .	34 50	34 50
Sunderland,* .	1	Greenfield, . . .	30 00	20 00
Sunderland, .	1	Amherst, . . .	34 50	34 50
Tyngsborough, .	11	Lowell, . . .	60 00	600 00
Wendell, . .	2	Montague (Centre), .	18 00	36 00
Wendell, . .	1	New Salem, . . .	22 50	22 50
Westhampton, .	3	Easthampton, . .	25 00	75 00
Westhampton, .	1	Northampton, . .	45 00	30 00
West Tisbury, .	1	New Bedford, . .	64 26	44 98
Whately, . .	3	Northampton, . .	45 00	120 00
Whately, . .	2	Greenfield, . . .	30 00	57 50
43 towns, . .	219	33 schools, . . .	Av. \$31 72	\$6,121 72

\* 1895-1896.

*A New Statutory Definition of a High School needed.* — The high school situation is an anomalous one. Properly qualified children in towns that do not maintain high schools at home are now enjoying, by provision of State law, and without expense to themselves, better privileges in outside high schools than many towns are now giving in the high schools they are required to maintain. The statutes recognize two grades of high schools. The chief original difference between them was that one taught Latin and Greek, while the other did not; one connected with the colleges in the traditional way, the other ignored the colleges and was in turn ignored by them. The statutory distinction between these two grades is hardly any-

where respected to-day. Indeed, when it comes to a question of the real grading of high schools, a nominal first grade high school may be a very poor one, while a nominal second grade high school may be a very good one. If we adhere to the nearly obsolete but still technically legal distinction between the two grades, we may group the towns with respect to high school obligations and privileges somewhat as follows :—

1. Towns required to maintain high schools, . . . . .	168
2. Towns not required to maintain high schools, though required to furnish free high school tuition, being all the remaining towns of the State, . . . . .	185
3. Towns whose population exceeds 4,000, and that must, therefore, have first grade high schools, . . . . .	108
4. Towns whose population is less than 4,000, but exceeds 500 families, and that must, therefore, have second grade high schools, . . . . .	60
5. Towns that maintain high schools though not required to do so, . . . . .	70
6. Towns that do not maintain high schools, . . . . .	115
7. Towns required to pay for high school tuition in other towns but not reimbursed therefor by the State, since their valuation exceeds \$500,000, . . . . .	43
8. Towns required to pay high school tuition in other towns but reimbursed therefor by the State, since their valuation is less than \$500,000, . . . . .	72
9. Towns actually reimbursed by the State for their high school tuition expenditures from September, 1896, to June, 1897, . . . . .	43
10. Towns not availing themselves, for 1896-97, of the tuition reimbursement law, . . . . .	29

An investigation made in 1894 showed that at least 198 high schools offered courses of study four years long, and that at least 146 of them had college preparatory courses. Both these numbers need to be increased a little, since the investigation did not elicit responses from every high school. Another investigation made in 1895 showed at least 209 high schools in which Latin was taught and 139 in which Greek was taught. This, too, failed to get responses from a few of the high schools.

The struggles of high schools to meet the special demands of the normal, scientific and collegiate institutions above them have raised nearly all of them—in plan, at least—either to the first statutory grade or to a grade distinctly above the second statutory grade. The time has come to recognize this general fact, by giving a new statutory definition of a high school sufficiently generous to cover its double function of



offering, on the one hand, a good general secondary education for at least four years, and of fitting pupils properly for higher institutions, on the other. Most towns have already anticipated such a definition in their high school plans. The State has practically adopted such a definition for the 115 towns that must pay tuition in outside high schools. As a matter of fact, the 219 high school pupils whose high school tuition was paid last year by 43 towns in 33 approved high schools and reimbursed by the State were nearly all of them in high schools that would fully meet such a definition. A new and strong definition is needed, that a town may not, willingly or unwillingly, by establishing a nominal high school of low grade at home, defeat that outside high school tuition to which its properly qualified children would otherwise be entitled. A definition thought to be suited to the conditions of to-day is incorporated in the draft of the attendance and truancy measure to be submitted to the Legislature of 1898.

*Collegiate Recognition of Popular High School Courses.* — We have in round numbers 40,000 pupils in our high schools, of whom some 5,000 are probably taking the traditional college preparatory studies. The college doors are wide open for the 5,000 as soon as they are graduated from the high school; they are practically closed to the 35,000. The colleges attach a value in their admission examinations to all the work of the 5,000; they ignore the value of much of the work of the 35,000. They practically say that the 5,000 are building upon good foundations for subsequent intellectual work, but that the 35,000 are not doing so. Whatever the value of the stereotyped Greek, Latin and mathematics for foundation and disciplinary purposes, — and that value should be respected by our high schools where they can do so without injustice to the multitudes that do not incline to such studies, — the colleges are doing a grievous wrong to the general courses of our high schools and to the large numbers that choose them by withholding from such courses their full and generous recognition as expressed in their terms of admission. A college course has a certain prestige which the general course lacks. One is a royal avenue, the other a common road. Teaching is usually more thorough, attainment more searchingly tested, ambition more successfully stirred, effort more seriously incited, in the

former than in the latter. Too often when there is but one teacher for both courses the latter gets only the dregs of his interest and energy. Why should not the general courses share in the stimulus that comes from above? The college threshold once passed, the high school subjects ignored in admission examinations are all recognized as requirements or electives. The irresistible modern drift has compelled this recognition in college as in high school curricula. Still the injurious and indefensible break continues. Colleges that should rest on the broad foundations of general education, that should recognize their moral obligation to inspire the whole system of public and private schools below them, and that should, therefore, contribute their powerful influence to increase the seriousness, thoroughness and dignity of instruction for the 35,000 as well as for the 5,000, seem still reluctant to do so. Fortunately, some of the ablest college leaders see the inconsistency and narrowness of forcing candidates for admission to take only the traditional studies in the traditional way. They would have the colleges connect with the growing high school system of the State all along the upper line. They take the ground that a course of study suitable for the general culture purposes of one not aiming for college is also suitable for college purposes. The movement to bring this about has already begun. So strong is this movement destined to become that in a few years any good high school course of four years, if pursued with sufficient earnestness, will make one eligible to the college admission examinations. When this time comes, the problem of the small country high school will be simplified if not solved. It can then concentrate its energies on a single general course, that shall answer alike for the graduate who goes no higher as well as for the graduate who seeks to enter the normal school, the technical school or the college. If the colleges in general would provide for beginners in Greek, this would make it still easier for the small high school to drop that embarrassing and expensive though valuable subject, for it could be taken up later. It is far better for the small high school that Greek should be postponed until college is entered than that chemistry or botany or any other popular subject should be so postponed. And yet the colleges in effect encourage the preparatory classes of high schools to postpone certain high school studies which

the general classes must take; while they object to the postponement of Greek, which the general classes will not take. This policy works no special hardship for the large high school, but heavily handicaps the small one.

### EVENING SCHOOLS.

*XIX. Table giving, for a Period of Ten Years, from 1888 to 1897, the Number of Towns that have maintained Evening Schools; also the Number of Such Schools, with the Attendance and the Expense of supporting Them.*

YEAR.	Number of Towns.	Number o Schools.	ATTENDANCE.			Per Cent. of Attend- ance.	Expense.
			WHOLE NUMBER ATTENDING.		Average.		
			Males.	Females.			
1888, . .	50	214	17,364	7,351	12,823	51	\$112,873 75
1889, . .	51	240	17,208	6,424	12,598	53	127,942 05
1890, . .	52	201	17,928	6,892	13,972	51	138,732 02
1891, . .	55	266	21,131	7,322	14,526	51	151,279 24
1892, . .	55	255	22,340	6,881	15,287	52	131,557 63
1893, . .	58	244	21,615	6,169	14,881	53	152,269 06
1894, . .	55	285	25,385	7,534	17,420	52	171,544 57
1894-95, . .	54	747	22,277	6,991	15,371	53	176,188 14
1895-96, . .	49	681	20,786	9,764	16,282	53	176,304 02
1896-97, . .	55	739	20,126	9,674	16,472	55	185,862 42

*Comments on Table XIX.*—For the past three years the unit adopted in counting the evening schools has been the single class room. Previously it was usually the popular count that determined the number. This explains the great increase in number for these three years. According to the popular count there were the past year 215 evening schools, — 13 high, 156 elementary, 46 drawing, and 3 others for writing, book-keeping and cooking respectively. According to the class-room count, there were 739 evening schools, or 58 more than last year. While the number of schools has increased, the membership has decreased by 750. On the other hand, the average attendance has increased by 190 and the percentage of attendance has risen to 55, — the highest in the history

of our evening schools. Were the percentage of attendance based on the ratio of the average attendance to the average membership, as in the day schools, and not on the ratio of the average attendance to the total membership, as at present, it would run higher than now, and yet be a legitimate showing.

The cost of the evening schools per pupil is \$6.24, as against \$5.77 last year and \$6.08 the year before. The number of teachers is 1,352, or 155 more than the number reported last year. This number is 613 in excess of the number of schools reported. It means one teacher for 22 pupils of the total membership or for 12 pupils of the average attendance. The number of pupils per teacher in the evening schools is much less than the number per teacher in the day schools. The diverse conditions that prevail in the former obviously require a closer approach to individual teaching than the more even conditions of the latter.

#### LENGTH OF TIME THE SCHOOLS HAVE BEEN KEPT.

XX. *Table showing the Length of Time the Schools have been kept during Each Year from 1888 to 1897,—a Period of Ten Years.*

	Average Number of Months and Days.		Average Number of Months and Days.
1888, . . . .	8-15	1893, . . . .	9-3
1889, . . . .	9-1	1894, . . . .	9-6
1890, . . . .	8-15	1894-95, . . . .	9-6
1891, . . . .	9	1895-96, . . . .	9-6
1892, . . . .	9-2	1896-97, . . . .	9-6

*The Schooling in General more than Eight Months.*—The average number of months which the schools were kept during the year is 9 months and 6 days. This average has remained unchanged for four years. It cannot be expected to rise much higher. The law requires that towns whose population is 4,000 or more shall keep their schools open at least 8 months in the

year. There are 102 such towns. All of them maintain their schools at least 8 months and most of them from 9 to 10 months. There are 251 remaining towns that are required by law to keep their schools at least 6 months. Fourteen of these towns keep their schools between 6 and 7 months; 35, between 7 and 8 months; and the remaining 202 meet not only the minimum requirement that applies to them but the maximum requirement that applies only to the larger towns. In short, the schools are kept more than 8 months for a population of 2,465,996, and less than 8 months for a population of only 34,187.

*XXI. Table showing the Distribution of Towns according to the Approximate Lengths of their Schooling.*

COUNTIES.	NUMBER OF TOWNS WHOSE SCHOOLS WERE KEPT—					Number of Towns.
	Ten Months.	Between 9 and 10 Months.	Between 8 and 9 Months.	Between 7 and 8 Months.	Between 6 and 7 Months.	
Barnstable, . .	—	7	6	2	—	15
Berkshire, . .	—	12	6	9	5	32
Bristol, . . .	—	12	7	1	—	20
Dukes, . . .	—	1	5	—	1	7
Essex, . . .	9	20	6	—	—	35
Franklin, . .	—	5	11	6	4	26
Hampden, . .	2	7	10	3	1	23
Hampshire, . .	—	5	9	7	2	23
Middlesex, . .	6	30	17	—	1	54
Nantucket, . .	1	—	—	—	—	1
Norfolk, . . .	2	23	2	—	—	27
Plymouth, . .	3	14	10	—	—	27
Suffolk, . . .	2	2	—	—	—	4
Worcester, . .	2	22	28	7	—	59
Totals, . . .	27	160	117	35	14	353

*The Sentiment of the State in Favor of more than Eight Months' Schooling.* — The sentiment of the State, it is thus seen, is overwhelmingly in favor of a length of schooling whose minimum shall not fall below 8 months a year. One of the propositions in the school attendance measure to be submitted to the Legislature is to make the minimum length for all schools in the State 8 months, instead of 8 months for 102 towns and 6 months for 251 towns, as at present. There are 304 towns upon which such a change would put no new burden. There are 35 additional towns upon most of which the change would fall so lightly as hardly to be worth noticing, the increase required varying from only 4 or 5 days in many cases to 20 as the extreme limit.

*Certain Small Towns that provide less than Seven Months' Schooling.* — There are left 14 towns only in which the increase required by a legal minimum of 8 months' schooling would vary from 5 weeks to 8. Table XXII. is a table of these towns, and of sundry facts about them, as presented in their school returns.

*Certain Small Towns that provide more than Eight Months' Schooling.* — The query naturally comes whether the 14 towns given in Table XXII. might not find ways of lengthening their schooling without undue strain upon their resources. Possibly the experience of other towns may suggest how such an extension of school facilities can be brought about. Table XXIII. shows that many small towns have found a way to prolong their schools. Every town in the list except 4 has a population of less than 1,000; every town has a valuation under \$500,000; every town may satisfy the law with six months' schooling; and yet every town keeps its schools at least 8 months, while some of the towns rose to 9 months or more.

XXII. Table giving Sundry Facts about Towns whose Schools are kept between Six and Seven Months.

TOWNS.	Valuation.	DOLLARS ON A THOUSAND.		Number of Schools.	Number of Pupils.	Length of Schools in Months and Days.	Days Less than Eight Months.	FORMS OF STATE AID.			
		Tax Rate, 1896.	Expended on Schools, 1896.					School Fund.	High School Tuition.	Teachers' Salaries.	District Superintendence.
Ashby,	\$458,785	\$15 00	\$4 37	8	142	6-12	28	\$430 07	No	No	Yes
Blandford,	425,200	16 00	5 11	10	163	6-12	28	430 06	Yes	No	Yes
Becket,	411,016	15 00	3 37	8	188	6-16	24	408 39	Yes	No	Yes
Charlemont,	347,269	23 00	4 54	10	181	6-12	28	480 06	Yes	Yes	Yes
New Salem,	277,927	17 00	5 67	10	154	6-7	33	462 58	Yes	Yes	No
Chilmark,	216,439	9 25	1 69	3	30	6-10	30	408 39	Yes	Yes	No
Middlefield,	205,134	11 00	3 92	5	115	6-13	27	516 77	Yes	Yes	Yes
Otis,	199,163	14 00	3 73	6	83	6-11	29	462 57	Yes	Yes	No
Washington,	188,049	12 60	2 66	7	78	6-10	30	43 06	Yes	Yes	Yes
Windsor,	183,422	16 80	4 31	7	84	6-4	36	403 38	Yes	Yes	No
Rowe,	173,009	18 00	4 98	6	79	6 15	25	300 00	Yes	Yes	No
Plainfield,	161,401	15 00	3 39	6	99	6-13	27	462 57	Yes	Yes	No
Florida,	150,969	22 00	6 85	4	103	6-15	25	512 58	Yes	Yes	Yes
Hawley,	142,150	23 00	5 44	7	79	6	40	512 58	Yes	Yes	Yes

XXIII. Table giving Sundry Facts about Small Towns whose Schools are kept longer than Eight Months.

TOWNS.	Valuation.	DOLLARS ON A THOUSAND.		No. of Schools.	No. of Pupils.	Length of Schools.	FORMS OF AID FROM THE STATE.			
		Tax Rate, 1896.	Expended on Schools, 1896.				School Fund.	High School Tuition.	Salaries of Teachers.	District Super-Intendent.
Southwick, . . . . .	\$491,840	\$18 75	\$3 66	10	204	8-15	\$308 38	Yes	No	Yes
Russell, . . . . .	491,234	17 00	3 66	7	160	8-15	330 06	Yes	No	No
Lakeville, . . . . .	490,475	11 00	3 05	8	137	8-0	462 58	Yes	No	No
Gill, . . . . .	488,184	11 00	3 74	5	133	8-15	462 58	Yes	No	Yes
Southampton, . . . . .	482,063	13 50	3 29	8	230	8-7	430 06	Yes	No	Yes
Berlin, . . . . .	478,810	11 60	2 66	5	174	8-7	430 07	Yes	No	Yes
West Stockbridge, . . . . .	476,141	13 20	7 66	8	279	9-13	516 76	Yes	No	Yes
Bolton, . . . . .	474,074	11 00	3 46	5	142	9-0	462 58	No	No	Yes
Granby, . . . . .	435,331	13 70	4 13	8	162	8-5	462 58	No	No	Yes
Egremont, . . . . .	434,099	11 50	1 91	4	124	9-5	430 06	Yes	No	Yes
Sunderland, . . . . .	422,300	11 00	4 55	3	112	8-15	516 77	Yes	No	Yes
Whately, . . . . .	414,022	16 00	3 13	5	105	8-5	430 06	Yes	No	Yes
Hampden, . . . . .	400,020	11 50	3 24	5	100	8-10	462 58	Yes	No	Yes
Barnardston, . . . . .	398,946	20 00	4 54	6	130	8-5	516 77	No	No	Yes
Erving, . . . . .	394,443	20 00	5 47	6	220	9-0	462 58	Yes	No	Yes
West Tisbury, . . . . .	389,282	6 00	1 86	3	72	8-12	462 57	Yes	No	Yes
Berkley, . . . . .	385,395	9 50	4 48	7	182	8-10	516 77	Yes	No	No
Tyngsborough, . . . . .	382,726	18 00	9 21	4	113	9-2	462 57	No	No	Yes



Carlisle, .	349,723	16 67	2 85	5	90	8-15	430 06	Yes	Yes	Yes
Granville, .	348,393	26 00	6 32	8	225	8-15	512 58	Yes	Yes	Yes
Richmond, .	327,800	16 60	4 66	6	138	8-15	512 57	Yes	Yes	Yes
Truro, .	327,605	15 50	5 39	6	187	9-0	462 57	Yes	Yes	No
Warwick, .	326,439	14 30	3 15	5	111	9-0	458 38	Yes	Yes	Yes
Plympton, .	315,259	11 30	2 80	3	63	9-10	430 06	Yes	Yes	No
Dana, .	303,209	14 80	2 96	3	106	8-8	430 06	Yes	Yes	No
Paxton, .	287,623	13 40	2 71	2	76	8-7	300 00	Yes	Yes	No
Eastham, .	287,320	10 00	3 13	3	72	9-0	462 58	Yes	Yes	Yes
Dunstable, .	285,437	12 50	4 66	3	68	8-15	408 39	Yes	Yes	Yes
Leverett, .	274,534	14 80	3 35	5	132	8-10	408 39	Yes	Yes	Yes
Phillipston, .	269,855	17 20	4 07	4	78	8-5	430 06	Yes	Yes	Yes
Halifax, .	268,071	14 50	4 47	3	84	8-18	462 58	Yes	Yes	No
Wales, .	266,232	13 00	6 02	5	165	8-6	462 57	Yes	Yes	Yes
Greenwich, .	260,094	17 00	2 88	3	87	8-14	300 00	Yes	Yes	No
Boxborough, .	229,255	11 50	3 48	4	70	8-10	462 58	Yes	Yes	No
Gosnold, .	222,251	4 62	31	1	15	9-0	300 00	Yes	Yes	No
Monroe, .	143,569	20 00	3 57	3	54	9-0	300 00	Yes	Yes	Yes
Holland, .	88,682	14 50	2 77	1	24	8-4	430 06	Yes	Yes	No
New Ashford, .	55,605	22 00	3 59	1	22	8-5	300 00	Yes	Yes	No
Gay Head, .	24,882	10 00	3 85	1	43	8-0	430 06	Yes	Yes	No

*Comments on Tables XXII. and XXIII.* — The difference in the length of schooling between the highest showing of the smaller of the two preceding lists and the lowest showing of the larger is 1 month and 4 days; between the lowest showing of the smaller and the highest showing of the larger, 3 months and 13 days. Granted equally good instruction in the towns of both lists, and the children in the smaller class are sadly handicapped, as compared with those in the larger.

It needs only a casual study of the two lists to bring out the fact that one of them has relatively a much larger number of small and scattered schools than the other. This fact becomes more conspicuous when seen in the following comparison: —

	POPULATION.		Number of Schools.	Enrolment of Pupils.	Average Number of Schools per Town.	Average Number of Pupils per School.
	Total.	Average per Town.				
Fourteen towns, .	8,479	606	97	1,578	7	16
Thirty-nine towns,	25,708	659	182	4,686	5	26

In the smaller list the average number of schools per town is 40 per cent. higher than in the larger list, while the average number of pupils per school is 37 per cent. less. This means a larger number of teachers per town for the smaller list and a larger monthly expenditure for their salaries if the wages of teachers are the same in both lists; and yet the towns of the smaller list are smaller than those of the larger list. This is doubtless the explanation — at least in part — of the briefer schooling in the smaller list.

*One Way of prolonging the Schooling without Increased Expense.* — If the question is raised why certain towns with a larger school population have fewer schools than other towns of a smaller school population, another comparison between these two classes of towns may furnish a partial answer: —

	Length of Schooling.	Number of Towns Transporting Children.	Transportation Expenditures.	Average per Town Transporting.
Fourteen towns, .	Under 7 mos.	9	\$805 07	\$89 45
Thirty-nine towns,	Over 8 mos.	25	6,286 60	251 41

The policy of consolidating feeble schools and of transporting the children to stronger central schools, while pursued in both classes of towns, has been carried further in the larger list, and has much to do with the ability of these towns to increase the length and efficiency of their schools. The money saved in a small town by reducing the number of teachers is often large enough to furnish better school accommodations to the children, better wages to better teachers for them, such transportation as consolidation requires, and longer schooling. Without venturing to express an opinion as to the feasibility of effecting further unions of small schools in any of the towns of the foregoing lists or in any other towns of the State, the secretary earnestly commends the policy of such consolidation, wherever conditions permit it, as one favorable to the interests of the children.

XXIV. *Table showing the Towns that have not kept All their Schools Six Months during the Year, the Number of Schools not kept Six Months, and the Average Time of keeping the Schools as a Whole in These Several Towns.*

COUNTIES.	TOWNS.	Number of Schools kept less than the Time required by Law.	Average Length of Schools of Town as a Whole.
Bristol, . . .	Fairhaven, . . .	1	9-1

*A Table practically Extinct.* — This table, which has been reducing in importance for many years, should have become extinct this year. Fairhaven, whose schools are really kept much longer than the law requires, reported one school as kept less than the legal time. Upon inquiry, however, it was found that the school in question was a very small one, which it was deemed advisable to close after it had been open six weeks. Other schooling was available for the children. Inasmuch as the children were not deprived of their legal schooling, it was needless to report the case. Last year this table showed that 9 towns failed to keep 11 schools the full legal time. The year before, 18 towns with 25 schools were reported; and the year preceding that, 41 towns with 50 schools. In some of

these cases schools ceased to exist simply because of consolidation, the children having been otherwise and usually better provided for. Such cases should never have been reported as delinquents. The closing of a school in a sense to deprive children of their schooling is illegal and reprehensible; the closing of a school in a sense to furnish children with a better school elsewhere is legal and commendable.

*Neglect of Pupils within the Compulsory Years.* — While the schools of the State are now kept open the full legal time and more, it does not follow that all the children within the compulsory age limits are successfully kept at school. There are some towns in which parents and school boards negligently suffer children within the compulsory years to stay out of school. There are other towns whose committees would enforce the attendance laws, but they encounter in some of the provisions of these laws serious obstacles to such enforcement. The application of these laws, for instance, is made contingent on the adoption of suitable by-laws by the towns and cities. Procedure against truants must be under such by-laws. Some towns have unsatisfactory by-laws under the existing attendance law; some towns have by-laws under old attendance laws subsequently repealed, and some towns have no by-laws at all. Consequently, procedure against truants in such towns is blocked, and must continue so until local sentiment is sufficiently aroused to see to it that the State law is supplemented and made effective by the local law. The new attendance law to be submitted to the Legislature sweeps away this whole antiquated system of by-laws; its vitality does not hinge on supplementary legislation by 353 distinct communities.

Again, under the present law the sending of a truant to a truant school costs a town more than \$100 a year. This provision, in the case of a small town, operates as a bar to effective procedure against the persistent truant.

Other difficulties, most of them easily removable, in the way of enforcing the attendance laws are clearly pointed out in the exhaustive report made by the State Board of Education to the Legislature of 1896, and printed in the fifty-ninth annual report of the Board.

# AMOUNT EXPENDED FOR THE MAINTENANCE OF PUBLIC SCHOOLS.

XXV. Table showing the Appropriations and Expenditures for the Ten Years from 1888 to 1897.

	Amount raised by Taxes and expended for Wages and Board of Teachers, Transportation, Janitors and Fuel.	Amount received for the Schools from All Sources, exclusive of Appropriations for Buildings and Repairs.	For Each Child in the State between 5 and 15 Years of Age.	For Each Child in the Average Membership of the Public Schools.	Whole Amount expended for All School Purposes.	For Each Child in the State between 5 and 15 Years of Age.	For Each Child in the Average Membership of the Public Schools.	Ratio of Valuation appropriated to Public Schools.
1887-88, . . .	\$5,114,402 41	\$5,934,198 59	\$16 50	—	\$7,087,206 42	\$19 71	—	.00366
1888-89, . . .	5,366,605 29	6,203,390 55	16 87	—	7,510,718 85	20 42	—	.00376
1889-90, . . .	5,524,882 65	6,415,444 51	17 33	—	8,286,062 39	22 38	—	.00399
1890-91, . . .	5,707,514 37	6,652,972 67	17 67	—	8,554,545 51	22 72	—	.00397
1891-92, . . .	5,578,950 29	6,668,690 93	17 41	—	9,315,556 57	24 32	—	.00414
1892-93, . . .	6,282,141 20	7,388,605 29	18 94	—	9,663,907 49	24 77	—	.00414
1893-94, . . .	6,652,305 59	7,800,254 31	19 48	—	9,968,227 28	24 90	—	.00410
1894-95, . . .	6,949,942 96	8,160,452 37	19 98	\$23 88	10,661,356 22	26 07	\$31 20	.00431
1895-96, . . .	7,360,413 38	8,639,532 20	20 70	24 73	11,829,190 61	28 34	33 86	.00465
1896-97, . . .	7,736,815 48	9,132,291 97	21 17	25 10	12,390,637 92	28 72	34 05	.00472

*Total Amount expended on the Public Schools.* — The amount raised by taxation and expended for the wages of teachers, transportation of pupils, janitors and fuel was \$7,736,815.48, — an increase over the previous year of \$376,402.10, as compared with an average annual increase of \$260,891.61 for the past ten years. The amount received from all sources for the benefit of the public schools, exclusive of money for buildings and repairs, was \$9,132,291.97, which is an increase of \$492,759.77 for the year, as against \$479,079.83 last year, and an average annual increase of \$327,497.10 for the past ten years. This means \$21.17 for each child in the State between five and fifteen, and \$25.10 for each child in the average membership of the public schools. Add now the amounts expended for new buildings and for alterations and repairs of old buildings, and a grand total of \$12,390,637.92 is reached, which is an increase of \$561,447.31 for the year, as against an increase of \$1,167,834.39 last year. The average annual increase for the past ten years in this item has been \$539,055.44. The expenditures for schools during this period show, with but a single break, an annual increase that is in advance of the annual increase in the State's valuation.

*The Ratio of Men to Women.* — The number of teachers has increased by 568 during the year, — 42 men and 526 women. The numerical ratios of men to women for the past ten years, ending with 1897, have been 1 to 8.8, 1 to 10.2, 1 to 9.2, 1 to 9.5, 1 to 10.1, 1 to 10.4, 1 to 10.6, 1 to 10.5, 1 to 10.5 and 1 to 10.5. While the figures show that the proportion of women teachers has gained somewhat during this period, they also show that the gain has reached a standstill.

## TEACHERS AND TEACHERS' WAGES.

XXXVI. Table showing the Number of Teachers employed, Male and Female, and Total, for Ten Years; their Wages per Month, with the Increase and Decrease of the Same; also the Number of Teachers who have attended Normal Schools, and the Number of Normal Graduates employed.

	TEACHERS.			WAGES PER MONTH.				NORMAL TEACHERS.			
	Male.	Female.	Total.	Male.	Increase and Decrease.	Female.	Increase and Decrease.	Attended Normal School.	Normal Graduates.		
1888,	1,010	8,887	9,897	\$119 34	Increase, \$2 49	\$44 88	Decrease, \$0 05	3,246	Increase, 112	2,677	Increase, 144
1889,	901	9,222	10,123	108 88	Decrease, 10 46	45 93	Increase, 1 05	3,373	Increase, 127	2,689	Increase, 12
1890,	1,017	9,307	10,324	126 58	Increase, 17 70	44 79	Decrease, 1 14	3,504	Increase, 161	2,819	Increase, 130
1891,	1,016	9,630	10,646	118 07	Decrease, 8 51	48 17	Increase, 3 38	3,736	Increase, 232	3,070	Increase, 251
1892,	992	9,973	10,965	134 22	Increase, 16 15	46 52	Decrease, 1 65	4,059	Increase, 323	3,267	Increase, 197
1893,	989	10,244	11,233	140 73	Increase, 6 51	48 13	Increase, 1 61	4,131	Increase, 72	3,473	Increase, 206
1894,	1,009	10,705	11,714	129 41	Decrease, 11 32	47 91	Decrease, 0 22	4,222	Increase, 91	3,575	Increase, 102
1895,	1,046	10,981	12,027	128 55	Decrease, 86	48 38	Increase, 0 47	4,368	Increase, 146	3,734	Increase, 159
1896,	1,078	11,197	12,275	136 03	Increase, 7 48	50 30	Increase, 1 92	4,540	Increase, 172	3,903	Increase, 169
1897,	1,120	11,723	12,843	144 80	Increase, 8 77	52 20	Increase, 1 90	4,661	Increase, 121	4,103	Increase, 200

*The Wages of Teachers.* — The wages of men have advanced \$8.77 per month and those of women \$1.90 per month during the year. Some, of course, are paid more than this average, others considerably less. In some towns the salaries paid are extremely low, — large enough, doubtless, for the poor service that is sometimes rendered, but a miserable pittance for really competent teachers who have expended much time and money to qualify themselves for reputable work.

The following table shows, by counties, how many towns of the State pay salaries under each of the five classes into which the wages of men and women have been divided for purposes of comparison : —

XXVII. *Table giving the Classification of Towns according to Salaries paid.*

COUNTIES.	AVERAGE PER MONTH FOR MEN.					AVERAGE PER MONTH FOR WOMEN.				
	Above \$150.	From \$125 to \$150.	From \$100 to \$125.	From \$50 to \$100.	Below \$50.	Above \$60.	From \$50 to \$60.	From \$40 to \$50.	From \$30 to \$40.	Below \$30.
Barnstable, . .	—	—	2	11	—	—	—	4	9	2
Berkshire, . .	—	3	5	2	9	—	—	4	12	16
Bristol, . . .	—	4	2	4	6	1	2	3	11	3
Dukes, . . .	—	—	—	3	3	—	—	3	2	1
Essex, . . .	5	7	8	7	—	2	4	15	11	3
Franklin, . .	—	2	—	4	7	—	—	2	9	15
Hampden, . .	4	1	1	2	7	2	—	4	8	9
Hampshire, . .	—	1	2	4	5	—	—	3	9	11
Middlesex, . .	12	10	10	9	—	3	14	21	16	—
Nantucket, . .	—	—	1	—	—	—	—	—	1	—
Norfolk, . .	2	4	10	8	2	1	5	14	7	—
Plymouth, . .	1	2	5	10	6	1	1	11	13	1
Suffolk, . . .	2	1	—	1	—	2	—	2	—	—
Worcester, . .	5	4	14	15	8	—	3	18	38	—
State, . . .	31	39	60	80	53	12	29	104	116	61



The average pay for men throughout the State is \$144.80 per month. There are 37 cities and towns that pay more than this average, and 226 that pay less. There are 90 towns that do not employ men at all.

The average pay for women throughout the State is \$52.20 per month. There are 30 cities and towns that pay more than this average, and 322 that pay less. One town, Gay Head, does not employ women; its only school is taught by a man.

*Salaries in the Largest Cities.* — The following table gives the salary averages per month for men and women in the ten largest cities, these cities being arranged in the order of their population. They also show what percentage of their total valuation is expended upon the public schools. This percentage is a fair, but not wholly satisfactory, measure of ability to meet school expenses.

XXVIII. Table showing Salary Averages and Tax Rates for the Ten Largest Cities.

	Average per Month for Men.	Average per Month for Women.	DOLLARS ON A THOUSAND.	
			Tax Rate, 1896.	Expended on Schools, 1896.
Boston, . . . .	\$257 70	\$79 33	\$12 90	\$1 95
Worcester, . . . .	146 88	58 87	15 60	3 92
Fall River, . . . .	144 12	51 20	17 00	3 28
Lowell, . . . .	163 00	62 26	15 00	3 44
Cambridge, . . . .	185 00	66 75	15 10	3 35
Lynn, . . . .	160 12	61 65	17 40	3 67
New Bedford, . . . .	158 69	64 68	15 40	2 49
Somerville, . . . .	163 41	64 44	15 40	3 72
Lawrence, . . . .	139 17	51 88	15 60	3 54
Springfield, . . . .	181 53	61 08	12 80	3 01

*Salaries in the Largest Towns.* — The following table gives the salary averages for the ten largest towns, arranged in the order of their population : —

XXIX. *Table giving Salary Averages and Tax Rates for the Ten Largest Towns.*

	Average per Month for Men.	Average per Month for Women.	DOLLARS ON A THOUSAND.	
			Tax Rate, 1896.	Expended on Schools, 1896.
Brookline, . . . .	\$157 00	\$68 00	\$12 40	\$1 69
Melrose, . . . .	113 75	54 26	15 20	3 69
Hyde Park, . . . .	121 25	52 14	14 80	3 97
Clinton, . . . .	130 00	51 32	20 40	3 91
Weymouth, . . . .	86 25	48 20	17 70	5 76
Westfield, . . . .	155 83	48 18	18 00	4 13
Peabody, . . . .	132 50	45 36	16 80	3 76
Amesbury, . . . .	121 25	43 16	14 60	3 32
Framingham, . . . .	142 50	46 18	18 00	4 48
Leominster, . . . .	111 33	42 54	15 60	4 21

*Salaries in Towns of Medium Size.* — The ten largest towns of those whose population is under 5,000 are arranged in order in the following table : —

XXX. *Table giving Salary Averages and Tax Rates for the Ten Largest Towns with a Population under 5,000.*

	Average per Month for Men.	Average per Month for Women.	DOLLARS ON A THOUSAND.	
			Tax Rate, 1896.	Expended on Schools, 1896.
Williamstown, . . . .	\$69 07	\$34 25	\$16 50	\$3 88
Hingham, . . . .	120 00	44 70	14 80	3 90
Great Barrington, . . . .	145 00	34 00	10 00	3 90
Easthampton, . . . .	109 14	35 93	16 00	5 09
Amherst, . . . .	141 00	42 48	14 75	4 02
Bradford, . . . .	121 25	49 25	19 76	5 90
Ipswich, . . . .	155 00	36 00	13 50	3 45
Reading, . . . .	170 00	47 70	18 00	3 76
Bridgewater, . . . .	160 00	66 40	15 50	5 40
Canton, . . . .	115 00	47 68	16 80	3 61

*Salaries in Towns that pay Women less than \$30 per Month.* — The following 59 towns report averages per month for women that are less than \$30. Of these towns, Dartmouth has a population of 3,107; Westport, 2,678; Belchertown, 2,161; while Rehoboth, Chatham, Essex, Newbury, West Newbury, Hinsdale, New Marlborough, Ashfield, Charlemont, Colrain, Conway, Hadley and Williamsburg have each a population of between 1,000 and 2,000. The remaining 43 towns range in population from 962 in Brimfield to 116 in New Ashford. There are 95 towns in the State whose population is under 1,000 each, of which 52 pay salaries higher than \$30 per month. In this statement, however, no implication is intended that population is a criterion of ability to pay fair wages. The true factors in such ability are a lively and intelligent interest in the schools and a sufficient amount of taxable property with which to give expression to such interest. Sometimes there is interest without the property, sometimes property without the interest, sometimes a happy conjunction of both, and sometimes an unhappy lack of either. With five exceptions — Rehoboth, Charlemont, Colrain, New Salem and Wendell — every one of these towns shows a decrease in population since 1895.

XXXI. *Table showing Salaries and Tax Rates in Towns that pay Women less than \$30 a Month.*

	AVERAGE WAGES PER MONTH.		DOLLARS ON A THOUSAND.	
	Men.	Women.	Tax Rate, 1896.	Expended on Schools, 1896.
<b>BARNSTABLE:</b>				
Chatham, . . . .	\$94 44	\$28 72	\$17 00	\$5 18
<b>BERKSHIRE:</b>				
Becket, . . . .	—	26 00	15 00	3 37
Florida, . . . .	—	29 33	22 00	6 85
Hancock, . . . .	34 00	29 33	7 60	2 27
Hinsdale, . . . .	64 84	21 20	15 60	5 20
Monterey, . . . .	24 00	23 20	15 00	3 66

XXXI. Table showing Salaries and Tax Rates, etc. — Continued.

	AVERAGE WAGES PER MONTH.		DOLLARS ON A THOUSAND.	
	Men.	Women.	Tax Rate, 1896.	Expended on Schools, 1896.
BERKSHIRE — Con.				
Mount Washington, . . . .	—	\$26 15	\$13 50	\$0 91
New Marlborough, . . . .	—	26 15	16 00	3 61
Otis, . . . . .	\$20 00	24 66	14 00	3 73
Peru, . . . . .	—	20 00	16 50	4 53
Richmond, . . . . .	—	25 00	16 60	4 66
Sandisfield, . . . . .	21 72	20 72	14 00	3 16
Savoy, . . . . .	22 00	20 14	20 00	4 53
Tyringham, . . . . .	—	25 00	12 00	2 93
Washington, . . . . .	20 00	24 50	12 60	2 66
Windsor, . . . . .	—	23 93	16 80	4 31
BRISTOL :				
Dartmouth, . . . . .	52 92	29 43	16 40	2 75
Rehoboth, . . . . .	—	29 57	15 20	5 44
Westport, . . . . .	51 25	28 38	16 00	3 30
DUKES :				
Chilmark, . . . . .	20 00	28 83	9 25	1 69
ESSEX :				
Essex, . . . . .	100 00	29 44	16 30	3 64
Newbury, . . . . .	—	29 21	10 50	3 24
West Newbury, . . . . .	80 55	29 73	15 00	4 15
FRANKLIN :				
Ashfield, . . . . .	52 47	25 62	16 50	4 54
Bernardston, . . . . .	—	29 33	11 50	4 54
Charlemont, . . . . .	—	28 00	23 00	4 54

XXXI. *Table showing Salaries and Tax Rates, etc. — Continued.*

	AVERAGE WAGES PER MONTH.		DOLLARS ON A THOUSAND.	
	Men.	Women.	Tax Rate, 1896.	Expended on Schools, 1896.
FRANKLIN — Con.				
Colrain, . . . .	\$30 00	\$27 00	\$15 00	\$5 05
Conway, . . . .	66 67	28 56	18 20	4 73
Hawley, . . . .	—	26 00	23 00	5 44
Heath, . . . .	28 00	25 00	21 00	6 15
Leverett, . . . .	—	27 20	14 80	3 35
Leyden, . . . .	—	24 40	15 00	2 33
New Salem, . . . .	28 67	25 00	17 00	5 67
Rowe, . . . .	24 00	27 46	18 00	4 98
Shutesbury, . . . .	—	24 72	20 00	4 20
Warwick, . . . .	28 00	28 00	14 30	3 15
Wendell, . . . .	—	29 00	21 00	3 06
Whately, . . . .	34 00	29 40	16 00	3 13
HAMPDEN:				
Blandford, . . . .	34 78	28 60	16 00	5 11
Brimfield, . . . .	—	28 00	19 25	4 71
Hampden, . . . .	40 00	29 50	11 50	3 24
Longmeadow, . . . .	—	28 00	9 20	3 78
Montgomery, . . . .	—	23 20	12 50	4 61
Russell, . . . .	—	27 50	17 00	3 66
Southwick, . . . .	60 00	26 68	18 75	3 66
Tolland, . . . .	—	20 33	17 50	3 52
Wales, . . . .	22 00	27 12	13 00	6 02
HAMPSHIRE:				
Belchertown, . . . .	42 62	26 40	15 50	5 88
Chesterfield, . . . .	24 00	22 75	17 10	3 41

XXXI. Table showing Salaries and Tax Rates, etc. — Concluded.

	AVERAGE WAGES PER MONTH.		DOLLARS ON A THOUSAND.	
	Men.	Women.	Tax Rate, 1896.	Expended on Schools, 1896.
HAMPSHIRE — Con.				
Cummington, . . . .	\$36 00	\$27 85	\$18 30	\$5 24
Goshen, . . . .	—	24 00	16 33	2 57
Hadley, . . . .	—	25 89	16 00	3 45
Middlefield, . . . .	45 00	28 16	11 00	3 92
Pelham, . . . .	—	27 23	16 00	5 63
Plainfield, . . . .	36 00	28 50	15 00	3 39
Prescott, . . . .	—	24 80	13 50	4 72
Williamsburg, . . . .	57 33	29 12	15 00	4 76
Worthington, . . . .	—	23 25	16 50	3 97
PLYMOUTH:				
Halifax, . . . .	45 00	29 64	14 50	4 47

Many of the towns in this list do not employ men at all. Some of them employ men in winter schools, but not in summer. The so-called average in some instances is the monthly pay of a single man. This man may be the principal of a high school or the teacher of some small, ungraded lower school. Hence the striking variations in average from \$20 per month to \$100. Some towns, like Ashfield, Belchertown, Bernardston, Brimfield, Hadley and New Salem, return no average for men, although they report high schools or schools that serve them as such whose principals are paid from \$60.44 to \$120 per month. The reasons for returning no average are to be found, doubtless, in the exceptional relations held by such towns towards these several schools.

While it is hard to generalize about the salaries of the men in this table, it is obvious enough that the salaries for the women run altogether too low. They might run higher and yet be too low. Good teachers cannot be hired for such

sums, or, if secured, they cannot long be retained. The domestics in our kitchens are better paid, for they receive \$3, \$4 or even \$5 per week, in addition to their board, to say nothing of money-saving perquisites frequently thrown in. These 59 towns may do a little foraging among themselves for good teachers, since some of them pay considerably more than others, but there are 294 towns in the State from whose schools they cannot hope to draw teachers. On the contrary, these 294 towns can all offer higher wages of varying degrees of enticement to teachers in the low-salaried towns below. Promising normal school graduates are out of the question, except, perhaps, as they can board or live at home, thus eking out at family expense a salary the public should pay. "Home talent" of an inexpensive, untrained, uncertain sort must be the rule. If from the lottery of such choosing fine teachers emerge, as they sometimes do, they are likely to be found out and captured by ambitious superintendents elsewhere who are in constant search of just such material. Sometimes school committees in their despair frankly take the ground that it is a misfortune to secure teachers of high capacity at the humble salaries possible. The steadier and more permanent service of faithful, plodding, but less brilliant and attractive teachers, they say, is, on the whole, better for their schools.

When the question arises whether these towns, and many others besides, are doing as well as they ought for the education of their children, a glance at the percentages of valuation expended by them upon their schools shows what towns are taxing themselves heavily for their schools and what lightly. It should be borne in mind, however, that valuations run high in some communities and low in others, so that seeming differences of burden do not always indicate real differences. On the whole, assessments of valuation are likely to be lower in small places that adhere to old-time simplicity and cheapness in the management of their affairs than in large places whose civil administration is complex and expensive.

*Certain Expenditures for State Reimbursement of Teachers' Salaries.* — Chapter 408, Acts of 1896, provides as follows: —

With the approval of the state board of education there may be paid from the income of the school fund, to any town having a valua-

tion of less than two hundred and fifty thousand dollars, a sum not exceeding two dollars per week for the actual time of service of each teacher, approved by the school committee of said town after special examination as to exceptional ability, employed in the public schools of said town, which sum shall be added to the salary of such teacher: *provided*, that the amount paid by the town toward the salary of such teacher shall not be less than the average salary paid by said town to teachers in the same grade of school for the three years next preceding, and that by said addition no teacher shall receive more than ten dollars per week.

This act was approved May 16, 1896, and became operative June 16, 1896.

Chapter 498, Acts of 1897, amended the foregoing act by substituting three hundred and fifty thousand dollars for two hundred and fifty thousand dollars, leaving the act in other respects unchanged. This amendment took effect upon its passage. It became operative, therefore, on the date of its approval, June 10, 1897.

The towns entitled, for the school year of 1897 and 1898, to the benefits of the law, as amended, are the following:—

*Barnstable County.*—Eastham, Mashpee, Truro.

*Berkshire County.*—Alford, Clarksburg, Florida, Hancock, Monterey, Mount Washington, New Ashford, Otis, Peru, Richmond, Sandisfield, Savoy, Tyringham, Washington, Windsor.

*Dukes County.*—Chilmark, Gay Head, Gosnold.

*Franklin County.*—Hawley, Heath, Leverett, Leyden, Monroe, New Salem, Rowe, Shutesbury, Warwick, Wendell.

*Hampden County.*—Holland, Montgomery, Tolland, Wales.

*Hampshire County.*—Chesterfield, Cummington, Goshen, Greenwich, Middlefield, Pelham, Plainfield, Prescott, Westhampton, Worthington.

*Middlesex County.*—Boxborough, Carlisle, Dunstable.

*Plymouth County.*—Halifax, Plympton.

*Worcester County.*—Dana, Oakham, Paxton, Phillipston.

The foregoing list is determined by the valuations of the towns for May 1, 1897, as returned to the Secretary of the Commonwealth.

The following table gives the cost of executing the law for the school year beginning in September, 1896, and ending in June or July, 1897:—



XXXII. *Table showing Expenditures for the Salaries of Public School Teachers in Small Towns.*

TOWNS.	Number of Different Teachers affected.	To what Date.	Amount claimed.
Boxborough, . . . . .	4	June 11, 1897,	\$204 00
Clarksburg, . . . . .	5	June 25, 1897,	236 00
Florida, . . . . .	6	July 3, 1897,	212 00
Goshen, . . . . .	3	July 2, 1897,	70 00
Hawley, . . . . .	10	June 30, 1897,	210 00
Heath, . . . . .	4	June 30, 1897,	93 30
Holland, . . . . .	1	June 25, 1897,	70 00
Mashpee, . . . . .	1	June 25, 1897,	24 00
Middlefield, . . . . .	5	July 2, 1897,	242 00
Monroe, . . . . .	4	March 12, 1897,	119 20
Monterey, . . . . .	3	June 30, 1897,	144 00
Montgomery, . . . . .	8	July 2, 1897,	144 00
New Ashford, . . . . .	1	June 15, 1897,	43 74
Pelham, . . . . .	4	June 18, 1897,	80 00
Peru, . . . . .	4	June 30, 1897,	198 00
Plainfield, . . . . .	8	July 2, 1897,	266 40
Prescott, . . . . .	11	July 2, 1897,	279 20
Savoy, . . . . .	7	July —, 1897,	258 00
Tolland, . . . . .	5	July 2, 1897,	90 00
Washington, . . . . .	13	July 1, 1897,	338 00
Wendell, . . . . .	6	July 9, 1897,	272 00
Westhampton, . . . . .	5	June 29, 1897,	280 00
Windsor, . . . . .	9	July 2, 1897,	244 00
Twenty-three towns, . . .	127	. . . . .	\$4,117 84

*Comments on Table XXXII.* — Nine towns that were entitled to take advantage of the original act did not do so, — Alford, Chilmark, Gay Head, Gosnold, Mount Washington, Otis, Rowe, Shutesbury and Tyringham. Of these 9 towns, Gay Head and Gosnold are the only ones whose salaries for teachers practically exclude them from the benefit of the law. The number of towns to take advantage of the law is 23. These 23 towns require 106 teachers. They employed 163 different teachers for the year covered by their last returns. The number of different teachers benefited by the act for the school year from September, 1896, to June, 1897, inclusive, was 127. Reports that come to the office indicate that there is, in general, an earnest desire to conform to the spirit of the law. In some cases towns have been enabled to retain good teachers who otherwise would have resigned. In other cases good teachers have been found to fill vacancies. In the majority of cases teachers working for small pay have been deemed worthy of an increase. In a few instances committees that think they have secured good teachers by taking advantage of the law are probably mistaken. At any rate, there seems to be a difference of opinion between such committees and the agents of the Board as to the worth of the teachers whose pay has been advanced. It is not surprising that such a disagreement sometimes occurs. Agents are constantly visiting schools. They witness all varieties of teaching. Their standards of what the teacher should be are built up from repeated observation of good work as well as from prolonged study of the philosophy of teaching. Consequently they readily distinguish the good schools which they visit from the poor. It is no reflection on members of school committees to say that they are often untrained to make such distinctions. If they visit schools at all, it is some single school or some small group assigned them. If they are faithful in their visits, there is still danger of a certain provincialism and narrowness in their observation. Whatever judgment they may show in the purely legislative or business aspects of school committee work, they may yet fail to realize that that teaching which satisfies the children or their parents or themselves may, after all, be of a very inferior kind.

The question has been raised whether the authority given the Board of Education to approve certificates of expenditures

under the law does not carry with it implied power to shape the examinations of teachers to be benefited by it. The specific granting of the power of examination to the school committee, in the wording of the law, seems to be a full answer to the question. This examination may vary, therefore, from a conscientious thoroughness on the part of some committees to mere perfunctoriness on the part of others.

The amendment by the Legislature of 1897, raising the limit of valuation from \$250,000 to \$350,000, adds 21 larger towns to the 33 smaller ones, previously eligible, and so will considerably increase the cost of executing the law.

Blank forms of certificates with directions for filling them out may be obtained at the office of the secretary.

It cannot be too strongly emphasized that the object of the State under the law is to co-operate with certain towns in securing a higher order of teaching ability for their public schools, and in retaining such superior ability for a longer time. The benefits of the law cannot, therefore, be honorably claimed unless its spirit is faithfully met.

The superintendent of schools in towns that have such an officer can render valuable service in securing the higher grade of teachers desired.

The principals of the State normal schools will gladly suggest the names of promising persons. Such suggestions can be made with increasing confidence by the principals as the practice departments of their respective normal schools are extended and the fitness of normal school pupils to teach, as shown by their experience in such practice schools, is more fully demonstrated.

The agents of the State Board of Education have been requested to keep the Board informed of the practical workings of the law, with special reference to the question whether the schools show progress under its operation.

*Changes in Teachers.* — It is important that there should be a certain measure of permanency in the teaching force. Frequent changes are injurious to the schools. They mean loss in time, in attainments, in money. All this is true, notwithstanding that some changes are for the better, as when incompetency is replaced by competency. The following table was compiled for the purpose of discovering the trend, if any

existed, towards increasing permanency of tenure or away from it: —

*XXXIII. Table showing the Annual Changes in the Number of Teachers employed for the Last Ten Years.*

	Number of Teachers Required.	Number of Teachers Employed.	Excess.	Ratio of Number of Positions to Number of Teachers Employed.
1888, . . . . .	8,559	9,897	1,338	1 to 1.16
1889, . . . . .	8,753	10,123	1,370	1 to 1.16
1890, . . . . .	8,935	10,324	1,389	1 to 1.15
1891, . . . . .	9,227	10,646	1,419	1 to 1.15
1892, . . . . .	9,486	10,965	1,479	1 to 1.16
1893, . . . . .	9,751	11,233	1,482	1 to 1.15
1894, . . . . .	10,073	11,714	1,641	1 to 1.16
1895, . . . . .	10,409	12,027	1,618	1 to 1.16
1896, . . . . .	10,682	12,275	1,593	1 to 1.15
1897, . . . . .	11,301	12,843	1,542	1 to 1.14

*Increasing Permanency of Tenure.* — In 1881, when the first returns were made of the number of teachers required and the number of teachers actually employed, the ratio of the former to the latter was 1 to 1.18. During the seventeen years, therefore, from 1881 to 1897, inclusive, there has been a slow, but, on the whole, a steady and gratifying gain in permanency of tenure. Boston returned, for 1897, 1,684 positions and 1,797 teachers employed, the ratio being 1 to 1.07. The 59 towns whose salaries for women are under \$30 per month (see page 131) returned for the same year 456 positions and 642 teachers employed, the ratio being 1 to 1.41. This means relatively few changes for Boston, relatively many for these towns. If the changes in Boston seriously interrupt the work of the schools, as frequently alleged, how much more serious must be the interruptions in these rural towns.

*Tenure of Office Act.* — Chapter 313 of the Acts of 1886 provides that the school committee of any city or town may elect

any duly qualified person to serve as a teacher in the public schools of such city or town during the pleasure of such committee: *provided*, such person has served as a teacher in the public schools of such city or town for a period of not less than one year.

In response to inquiries whether the provisions of the tenure of office act were observed, 135 towns and cities said “yes,” 156 “no,” and 61 made no response. It was the first time the question had ever been asked. Probably some of these affirmative answers are perfunctory and untrustworthy, as when the person making out the returns takes it for granted that the various school laws are observed, the tenure of office act among them, and so says “yes,” without reflecting that the act is permissive only, and that he may say “no” without convicting the town of disobedience. But, such errors of reply barred out, it will still doubtless surprise people that so many towns and cities are appointing their teachers, after due probation, to serve without annual elections and during the pleasure of the school committee.

#### EXPENSES OF TEXT-BOOKS AND SUPPLIES.

XXXIV. *Table showing the Sum appropriated and the Rate per Scholar, for the Past Ten Years, for Books, Stationery, Maps, Charts, etc.*

YEAR.	Total Expense of Books, etc.	Expense of Books, etc., per Pupil.	YEAR.	Total Expense of Books, etc.	Expense of Books, etc., per Pupil.
1887-88, .	\$428,736 05	\$1 49	1892-93, .	\$562,228 00	\$1 75
1888-89, .	427,155 56	1 42	1893-94, .	581,684 57	1 77
1889-90, .	469,924 02	1 54	1894-95, .	620,779 10	1 82
1890-91, .	494,545 27	1 60	1895-96, .	522,652 91	1 50
1891-92, .	532,530 73	1 70	1896-97, .	578,146 59	1 59
Average for 10 years, . . . . .			\$1 62		

*Cost of Text-books and Supplies.*—The cost of text-books and supplies the past year was \$1.59 per pupil, as against an

average of \$1.62 for the past ten years. Two years ago this table was freed from certain irrelevant items that had been creeping into it and swelling the apparent cost of text-books beyond the actual cost. The result is seen in the sharp fall in this cost. For the past two years a separate head or class has been provided in the blank for school returns for such alien sundries as had previously worked their way into this table for lack of a better place, or had been omitted altogether. The amount of these sundries for 1896 was \$247,464.40; for 1897, \$296,350.78.

*Certain Avoidable Difficulties under the Free Text-book System.*—The four chief adverse comments occasionally made about free text-books are these:—

1. They may become carriers of disease.
2. They may be kept in use too long.
3. They do not favor the gathering of educative books in the home.
4. Their proper care diverts the teacher unduly from his main work.

It may be said of the first comment that the danger, so far as it exists, is one common to the use of public library books, public conveyances, all forms of money,—in short, it is common to the use of all means whatsoever that bring people within range of threatening disease germs. The remedy lies in making safe the use of these things, not in abolishing the things themselves if they are otherwise good. School books exposed to contagion may easily be discovered if the laws relating to such matters are respected, and should be sterilized or destroyed.

As to the second comment, there are conditions at times to justify it. It seems to save money if worn-out books are kept in use a year or two longer than is agreeable to the æsthetic or the cleanly instincts of pupils and teachers. Such saving is not simply false economy; it involves an imposition. A dirty, dilapidated, exhausted book should be withdrawn from circulation as promptly as a dirty, dilapidated, exhausted banknote, and for similar reasons. It should not be overlooked that a fresh, attractive book is an incentive to study not to be despised.

The third comment would have been a serious one in the days when reading matter was scant. But books have become

so numerous and cheap, libraries so accessible, the reading habit so general, that it matters little to-day with most families whether they have school books on their shelves or not. Such books are at their best when the children are using them. As a matter of fact, during such use the home has or may have access to them. The access is transient, indeed, but it is not an unmixed evil that it is so. Of what use is an old school book — a geography, for instance, that omits half the States of the Union or describes California as a land of mists and anthropophagi — except, perhaps, as a relic? Still, if a town thinks it better, on the whole, that text-books should go finally to the home rather than to the paper mill, there is no insuperable objection to such a policy.

In the case of the fourth comment, it does not seem business like for a high-salaried instructor whose true field is that of general administration and teaching to spend much of his time on text-books, records and allied work, when some person at one half or one quarter of his salary can do such work to better advantage. In certain large schools of the State — the English high and the Latin schools of Cambridge, for instance — it has been found economical to employ a clerk for such purposes.

*Some Advantages of the Free Text-book System.* — Experience has brought some of the benefits of the free text-book system into well-defined and conspicuous prominence, as, for instance, the following: —

1. The removal of a serious burden of expense from parents.
2. The ending of the friction that so often arises when parents with old books in possession are called upon to buy new.
3. The banishing of obnoxious distinctions between those who can and those who can not afford to buy their own books.
4. A more generous and varied supply of text-books at school, with uniformity wherever desirable.
5. Greater ease in keeping this supply fresh and modern.
6. Increased respect for books, as shown in the care of them.
7. Great saving in time and energy, because of having books on hand, in ample supply, when terms begin or new subjects are taken up.
8. A larger and more permanent attendance upon the public schools.

9. A closer approach to the ideal of a free public school system.

*The Surprising Cheapness of the Free Text-book System.* — It was in 1826 that towns were first required to furnish text-books free of charge to pupils who could not afford to buy them. In 1873, towns were first permitted by law to adopt a free text-book system. As a matter of fact, however, they did not generally avail themselves of this permission. In 1884 the system was made compulsory. For some years previous to 1884 the annual expense of furnishing free text-books, chiefly to "indigent" pupils, was very large, rising in 1880, for instance, to \$291,728.40, or \$1.11 per pupil. The first year under the compulsory law was naturally an expensive year, the cost per pupil being \$2.08; thereafter the cost per pupil fell off, the lowest point since reached being \$1.42. In some places the compulsory law has at times literally cost less per pupil than the old "indigent pupil" system, the reduced cost of books when purchased by the municipality in large quantities more than offsetting the increased number of pupils supplied and the more liberal supplies furnished.

#### EXPENSE OF CONVEYING CHILDREN.

XXXV. *Table showing the Amount expended for transporting Children to School for the Past Nine Years.*

YEAR.	Percentage of Increase.	Sum expended.	YEAR.	Percentage of Increase.	Sum expended.
1888-89, .	-	\$22,118 38	1893-94, .	.26	\$63,617 68
1889-90, .	.09	24,145 12	1894-95, .	.19	76,608 29
1890-91, .	.27	30,648 68	1895-96, .	.16	91,136 11
1891-92, .	.26	38,726 07	1896-97, .	.12	105,317 13
1892-93, .	.31	50,590 41			

*Growth of the Policy of Consolidating Certain Schools.* — The conveyance of pupils to and from schools at public expense was authorized by chapter 132 of the Acts of 1869. The first returns of expenditures under the law were not made until 1888-89. For twenty years they were not large enough to



attract special notice as indicating a growing movement to consolidate widely scattered, thinly attended and decadent schools. This movement has gathered surprising momentum during the past few years, as the table shows, since the sums expended for transportation may be taken as a fair though not a perfect measure of the extent of the consolidation that has been effected. For comments on other evidences of the trend towards consolidation see page 77, also pages 122 and 123.

*Consolidation of Schools One Sequel of the Old District System.* — The policy of consolidating schools to promote both economy and efficiency, which Massachusetts was the first State in the Union to recognize and encourage, is one of the sequels of the old district system, adopted in 1789, which so needlessly divided and subdivided the educational energies of the town. It was believed to be a wise system at the time of its adoption; certainly it respected the intense individualism of the times. Its founders could not have foreseen that enormous urban development that has since depleted so many of our towns in population and wealth,—a depletion that has practically stranded many of their schools; nor could they have foreseen that expansion of the functions of the school in deference to modern demands, which of itself would have overburdened and broken down the district system, even if decadent towns had retained their old-time prosperity. Large numbers of States that followed the lead of Massachusetts in adopting the unfortunate district system are now consolidating the small and feeble schools whose multiplication that system stimulated. It is fitting that Massachusetts, having led them into an unwise policy, should now lead them out of it.

*Consolidation of Schools in Other Countries.* — It is interesting to note in this connection that other countries of the world have, like ourselves, become overburdened with small and feeble schools. With them as with us there has been a marked urban development at the expense, in varying degrees, of the rural districts. From the report of the minister of public instruction for Victoria, one of the Australian colonies, for 1896–97, the following extract is taken:—

Under the system of conveyance 241 schools have been closed up to the 30th of June last. There are besides several instances where,

instead of establishing new schools, the educational requirements have been met by conveyance. In the case of closed schools the saving, after deducting the cost of conveyance, amounts to about £14,170 per annum.

The attendance of the children whom this system provides for continues to be characterized by remarkable regularity, and the system has become so popular that applications are constantly being received to be brought under its provisions.

In the compulsory school laws of Victoria, which require attendance from the age of six to that of thirteen, the following excuses for non-attendance upon the public schools are given as reasonable ones : —

1. That a child is under efficient instruction in some other manner.
2. That the child has been prevented from attending school by sickness, fear of infection, temporary or permanent infirmity or any unavoidable cause.
3. That there is no State school which the child can attend within a distance of two miles, measured according to the nearest road from the residence of such child ; excepting when the child is more than nine years of age, then the distance shall be within two miles and a half from the residence of such child measured as aforesaid ; and when the child is more than twelve years of age, then the distance shall be within three miles from the residence of such child, measured as aforesaid.
4. That the child has been educated up to the standard.

Attention is called to the third excuse. It is the first instance that has come to the secretary's knowledge of a legislative determination of the distance which a child may be required to travel to attend a State school. It must not be overlooked, however, that while Victoria has eight times the area of Massachusetts, it has less than half the population. Moreover, nearly half of that population is rural, — a much larger proportion than with us. Facts like these, especially when the newness of the country is also taken into account, would seem to indicate that conveyance problems are far more serious in Victoria than in Massachusetts. For the secretary's views on conveyance distances for Massachusetts, see pages 89 and 90 of the fifty-ninth report.

## EXPENSE OF SUPERVISION.

XXXVI. *Table showing the Expense of Supervision, both by School Committees and by Superintendents, for Ten Years from 1887.*

	EXPENSE OF SUPERVISION.		
	By School Committees.	By Superintendents.	Total.
1887, . . . . .	\$112,926 60	\$96,831 28	\$209,757 88
1888, . . . . .	112,772 53	101,324 90	214,097 43
1889-90, . . . . .	112,649 15	114,993 28	227,642 43
1890-91, . . . . .	110,038 84	135,124 79	245,163 63
1891-92, . . . . .	96,491 48	153,208 48	249,699 96
1892-93, . . . . .	111,570 23	173,194 13	284,764 36
1893-94, . . . . .	113,038 77	186,856 64	299,895 41
1894-95, . . . . .	112,701 51	196,952 48	309,653 99
1895-96, . . . . .	113,765 40	202,908 67	316,674 07
1896-97, . . . . .	118,344 80	207,745 66	326,090 46

*Comments on Table XXXVI.* — The expense of supervision is \$9,416.39 larger than the year before, \$4,579.40 of this increase belonging to school committees and \$4,836.99 to superintendents. The number of school committees is constant; the number of superintendents has increased somewhat.

*Women on School Committees.* — Inquiries are frequently made about the extent to which women serve on school committees. The following statement answers such inquiries : —

	Towns.	Cities.	Totals.
Number of committees, . . . . .	321	32	353
Committees composed of men and women, . . . . .	140	19	159
Committees composed of men only, . . . . .	181	13	194
Men on committees, . . . . .	1,066	374	1,440
Women on committees, . . . . .	185	47	232

In many communities objections are still strenuously urged to women serving on school boards. It is not necessary to discuss these objections here. It is enough to say that half the parents of the children are women, half the children are girls, nine tenths of the teachers are women, the co-operation of the home with the school must be largely brought about through women, women are made expressly eligible by law both to membership themselves on school committees and to voting for the membership of others, practice is tending towards a larger interest on their part in public affairs, particularly in education, and experience is confirming the practice. If they are unbusiness-like or act on impulse or lack steadiness and poise or do not take broad views or betray other unfitness, so much the more reason for that kind of experience whose effect ultimately is to reduce such unfitness. It is quite conceivable that men, in spite of their prolonged experience, may fall below that ideal fitness that should characterize a school committee member. With the rapid increase in the number of highly educated women, with the formation of strong women's clubs for educational, literary, philanthropic and other work, with the larger life everywhere opening to women and bringing into varied activity her potential energy, it is important — nay, imperative — that this mighty gathering force should be utilized for the welfare of the children. One way to utilize it is to give it a channel of expression, as has already been authorized, through the service of women on school boards. Another is to welcome the service of women's clubs in that great and interesting supplementary field from which school committees, with their scant funds, are practically debarred, but in which outside forces, if they choose and are permitted to act, can do splendid co-operative work.

*The Number of Members on School Committees.* — The statutes require that the number of members on a school committee shall be three, or some number divisible by three. These members serve three years, and their terms of service are so arranged that one third of them retire each year. Inasmuch as the statutes provide that this number may be gradually increased or diminished to any multiple of three deemed desirable, it follows that during such a transition period there may be some other number of members than three or a multiple thereof.

School committees in cities are controlled in their number of members by special charter provisions, and so frequently depart from the multiple-of-three plan.

The following statement gives membership data for all the school committees of the State : —

Committees numbering 3 members each, . . . .	244
Committees numbering 6 members each, . . . .	53
Committees numbering 9 members each, . . . .	24
Committees numbering 12 members each, . . . .	2
Committees numbering 15 members each, . . . .	1
Committees numbering 18 members each, . . . .	—
Committees numbering 21 members each, . . . .	3
Committees numbering 24 members each, . . . .	2
Committees with membership not in 3's, . . . .	24
Total, . . . . .	<hr/> 353

Of the 24 committees whose numbers depart from the general statutory requirement, 16 are city committees to 12 of which the mayor belongs and to 4 of which the mayor and president of the common council belong, the remaining members, however, except in two cities, conforming to the general number requirement. The remaining 8 committees, 5 of which have 5 members each and 3 of which have 7 members each, are apparently, in most cases if not in all, reducing their membership, but have not completed the reduction.

The practice of the State is clearly in favor of small committees. Such changes in numbers as are now going on are mainly, if not wholly, in that direction. The few very large committees belong almost exclusively to cities.

## SUPERVISION BY SUPERINTENDENTS.

XXXVII. Table showing by Counties the Number and Per Cent. of Towns and Cities not under Superintendents, also the Number of Towns and the Number and Per Cent. of Schools and Children under Superintendents.

COUNTIES, 1896-97.	NUMBER OF TOWNS NOT HAVING SUPERIN- TENDENTS.		NUMBER OF TOWNS WHICH EMPLOY SUPERINTENDENTS.							
	Number.	Per Cent.	UNDER LAWS.			Total Towns.	SCHOOLS.		CHILDREN.	
			1854.	1870.	1888-93.		Number.	Per Cent.	Number.	Per Cent.
Barnstable, . . . . .	2	13.3	2	-	11	13	137	88.3	4,515	90.3
Berkshire, . . . . .	17	53.1	5	-	10	15	310	70.6	13,540	77.6
Bristol, . . . . .	5	25.0	9	-	6	15	696	93.6	36,008	96.2
Dukes, . . . . .	2	28.5	-	-	5	5	22	91.6	598	91.1
Essex, . . . . .	14	40.0	13	4	3	20	1,007	86.3	45,883	87.9
Franklin, . . . . .	5	19.2	2	-	19	21	218	85.8	6,995	92.1
Hampden, . . . . .	4	17.3	7	-	12	19	580	96.8	25,576	98.8
Hampshire, . . . . .	12	52.1	3	-	8	11	198	68.7	7,951	78.2
Middlesex, . . . . .	3	5.5	23	5	23	51	1,837	97.4	90,796	90.7
Nantucket, . . . . .	1	100.0	-	-	-	-	-	-	-	-
Norfolk, . . . . .	6	22.2	12	2	7	21	528	85.1	22,077	84.8
Plymouth, . . . . .	9	33.3	5	2	11	18	378	82.1	16,171	86.0
Suffolk, . . . . .	-	-	4	-	-	4	1,600	100.0	88,199	100.0
Worcester, . . . . .	10	16.9	15	-	34	49	1,227	93.5	53,850	94.9
Totals,	90	25.4	100	13	149	262	8,738	91.4	412,159	93.8

*Supervision by Superintendents of Schools still Gaining.*—Three years ago 120 towns had no superintendents of schools; two years ago, 100 towns; a year ago, 94 towns. The present report reduces the number to 90. In these 90 towns there are 817 schools and 27,208 pupils of all ages. The number of schools not under supervision by superintendents is 8.5 per cent. of the total number; the number of children not under such supervision 6.2 per cent. of the total number.

*Overwhelming Endorsement of Expert Supervision.*—It must not be forgotten that expert supervision has had to fight its way solely on its merits; it has gradually silenced opposition; it has changed much of this opposition to advocacy; towns have rarely receded from it when they have fairly tested it; it has been on trial for fifty years. That the State overwhelmingly believes in the policy cannot be doubted. The progress of our schools, as a whole, justifies this belief. School committees can do and are doing most important supervisory work of a legislative sort, — work that cannot be better done in any other way; but when it comes to that wise, detailed, personal, constant educational guidance which the schools imperatively need if they are to keep abreast of the times in promoting their pupils' welfare, it is no reflection upon school committees to say—indeed, no people say it with greater assurance than members of school committees themselves—that they are not ordinarily qualified to give such guidance, or, if qualified, they can not ordinarily spare the requisite time for it. And so it has come to pass that 262 school boards in Massachusetts have taken the cool, hard-headed, sensible business view that the schools, like any other great business enterprise, need special expert attention. The superintendent may fail, but the need continues. His failure may be fatal to supervision of the kind he gives, but it argues nothing against the supervision of the kind that is needed. Where superintendents are employed, school committees usually, though not always, serve without pay. Thus committee service is more likely to be of that unselfish, disinterested sort that appeals to and enlists the best citizens.

*Supervision, Universal and Compulsory.*—Massachusetts should hesitate no longer in extending a system to the entire State that has proved so helpful for most of the State. Uni-

versal supervision has been urged by every secretary of the Board from Horace Mann to the present. Most of the sixty-one volumes of our State educational reports have dwelt upon the great importance of such supervision. Three fourths of the States of the Union — nay, nearly all of them — have required by law universal supervision, and not one of them has a supervision policy that goes so directly and forcefully to the needs of small towns, and, therefore, so merits extension and fixity, as the district supervision policy of Massachusetts. The State invites her towns by that strongest of all invitations — an offer of generous money help — to avail themselves of supervision. Nearly half the towns not now under supervision desire such extension. They have voted, some of them repeatedly, to join towns in forming superintendency districts, but conditions beyond their control thwart their desires. If there is opposition in the remaining towns, it is largely the indirect opposition of indifference, though sometimes the direct opposition of persons who either believe the old way is better or fear the new way will cost them certain pay or emoluments that public service now brings them. If, in deference to the individuality of towns, the State shrinks from changing the voluntary system, then (1) it should make it easier for towns that have, in the aggregate, a less number than 25 schools to form a district; (2) it should authorize the union of towns whose valuation exceeds \$2,500,000 with towns whose valuation falls under that amount, with proportional State help to the latter. These two measures, with existing legislation, would help some of the small towns to supervision, but not all. If the small towns not under supervision would sufficiently realize that there is no better way to insure the wise expenditure either of their own money or of the State's money than by employing expert supervision for their schools; that the State invites them to take advantage of its offer to aid them in securing such supervision; and that the State would have still greater confidence in its policy of aiding them if they accepted such offer, — they would all, as nearly half of them have already done, indicate that attitude in unmistakable ways, and so remove the only bar to universal supervision, — the reluctance of the majority to impose a supervision requirement upon a possibly unwilling minority.



*Towns not under Supervision by Superintendents.* — Of the 353 towns and cities of the State, the following 90 have no superintendents of schools : —

*XXXVIII. Table of Towns without Superintendents of Schools.*

TOWNS.	Population.	Valuation.	Number of Different Pupils.	Number of Schools.
<i>Barnstable County.</i>				
1. Chatham, . . . .	1,809	\$836,333	298	12
2. Truro, . . . .	815	327,605	187	6
<i>Berkshire County.</i>				
1. Alford, . . . .	280	176,887	42	2
2. Clarksburg, . . . .	1,009	219,581	242	5
3. Great Barrington, . . . .	4,794	3,333,766	973	24
4. Hancock, . . . .	511	307,422	108	5
5. Hinsdale, . . . .	1,650	672,413	339	11
6. Lanesborough, . . . .	848	471,395	181	6
7. Lee, . . . .	4,066	1,714,989	643	14
8. Lenox, . . . .	2,872	3,444,988	670	15
9. Monterey, . . . .	464	229,699	107	6
10. Mt. Washington, . . . .	136	81,768	25	2
11. New Ashford, . . . .	116	55,605	22	1
12. Otis, . . . .	518	199,163	83	6
13. Peru, . . . .	305	116,102	60	4
14. Sandisfield, . . . .	802	376,277	167	10
15. Savoy, . . . .	504	154,380	99	6
16. Tyringham, . . . .	363	213,715	58	5
17. Windsor, . . . .	556	183,422	84	7
<i>Bristol County.</i>				
1. Berkley, . . . .	955	385,395	182	7
2. Freetown, . . . .	1,405	812,149	224	7
3. Rehoboth, . . . .	1,810	717,730	332	15
4. Seekonk, . . . .	1,465	916,010	281	8
5. Somerset, . . . .	1,983	1,047,339	388	10
<i>Dukes County.</i>				
1. Gay Head, . . . .	169	24,882	43	1
2. Gosnold, . . . .	140	221,251	15	1
<i>Essex County.</i>				
1. Amesbury, . . . .	9,986	5,095,866	1,293	30
2. Boxford, . . . .	727	700,465	114	6
3. Danvers, . . . .	8,181	4,589,255	1,588	29
4. Essex, . . . .	1,587	959,577	310	9
5. Hamilton, . . . .	1,356	1,718,040	239	6
6. Ipswich, . . . .	4,720	2,982,991	899	21
7. Lynnfield, . . . .	818	644,534	146	4
8. Merrimac, . . . .	2,301	1,315,698	472	14
9. Middleton, . . . .	838	553,100	134	5
10. Newbury, . . . .	1,489	985,052	255	9
11. Salisbury, . . . .	1,300	620,845	248	7

XXXVIII. *Towns without Superintendents of Schools* — Con.

Towns.	Population.	Valuation.	Number of Different Pupils.	Number of Schools.
<i>Essex County</i> — Con.				
12. Topsfield, . . . .	1,033	\$887,350	155	3
13. Wenham, . . . .	886	703,525	132	5
14. West Newbury, . . . .	1,643	866,850	282	11
<i>Franklin County.</i>				
1. Ashfield, . . . .	1,013	510,119	183	10
2. Heath, . . . .	476	153,629	117	6
3. Leyden, . . . .	363	299,161	67	5
4. New Salem, . . . .	869	279,927	154	10
5. Shutesbury, . . . .	444	161,527	71	5
<i>Hampden County.</i>				
1. Holland, . . . .	199	88,682	24	1
2. Montgomery, . . . .	275	138,931	54	5
3. Russell, . . . .	846	491,234	160	7
4. Tolland, . . . .	309	141,821	67	6
<i>Hampshire County.</i>				
1. Belchertown, . . . .	2,161	849,190	531	20
2. Chesterfield, . . . .	589	280,120	100	6
3. Cummington, . . . .	750	285,881	137	5
4. Enfield, . . . .	990	606,220	216	7
5. Goshen, . . . .	304	136,157	67	3
6. Greenwich, . . . .	481	260,094	87	3
7. Hadley, . . . .	1,704	955,052	300	13
8. Huntington, . . . .	1,450	504,080	335	10
9. Pelham, . . . .	486	171,413	92	4
10. Plainfield, . . . .	450	161,401	99	6
11. Prescott, . . . .	401	160,231	74	5
12. Worthington, . . . .	648	313,228	173	8
<i>Middlesex County.</i>				
1. Arlington, . . . .	6,515	7,851,663	1,341	26
2. Groton, . . . .	2,192	2,748,261	439	14
3. Wilmington, . . . .	1,420	1,026,342	283	9
<i>Nantucket County.</i>				
1. Nantucket, . . . .	3,016	2,975,659	350	12
<i>Norfolk County.</i>				
1. Avon, . . . .	1,626	785,120	297	7
2. Holbrook, . . . .	2,298	1,206,710	548	12
3. Hyde Park, . . . .	11,826	9,007,095	2,054	42
4. Medfield, . . . .	1,872	1,315,127	314	8
5. Norfolk, . . . .	882	515,138	155	6
6. Randolph, . . . .	3,694	1,883,700	713	17
<i>Plymouth County.</i>				
1. Carver, . . . .	1,016	822,775	192	7
2. Halifax, . . . .	497	268,071	84	3
3. Lakeville, . . . .	870	490,475	137	6

XXXVIII. *Towns without Superintendents of Schools* — Con.

TOWNS.	Population.	Valuation.	Number of Different Pupils.	Number of Schools.
<i>Plymouth County</i> — Con.				
4. Marion, . . . .	759	\$930,800	159	6
5. Pembroke, . . . .	1,223	636,570	210	8
6. Plympton, . . . .	549	315,259	63	3
7. Rochester, . . . .	1,021	504,169	174	6
8. Rockland, . . . .	5,523	3,016,270	1,054	23
9. Wareham, . . . .	3,367	2,073,213	609	20
<i>Worcester County.</i>				
1. Ashburnham, . . . .	2,148	1,071,760	451	13
2. Auburn, . . . .	1,598	546,759	345	8
3. Charlton, . . . .	1,877	907,090	330	14
4. Dana, . . . .	717	303,209	106	5
5. Lancaster, . . . .	2,180	3,026,272	388	10
6. New Braintree, . . . .	542	437,135	95	6
7. Oakham, . . . .	605	316,437	121	5
8. Paxton, . . . .	426	287,623	76	2
9. Rutland, . . . .	978	523,422	227	6
10. Sutton, . . . .	3,420	1,282,431	689	15
Totals (towns, 90), . .	147,075	\$93,886,067	27,208	819

*The Two Groups compared.* — The 11 towns of the foregoing list whose valuation exceeds \$2,500,000 are Great Barrington, Lenox, Amesbury, Danvers, Ipswich, Arlington, Groton, Nantucket, Hyde Park, Rockland and Lancaster. They are ineligible to State aid under the district supervision law. The remaining 79 towns are eligible to such aid.

	Population.	Valuation.	Number of Schools.	Number of Pupils.
Eleven towns, . . .	61,805	\$48,072,086	281	11,049
Seventy-nine towns,	85,270	45,813,981	538	16,159
Eleven towns, . . .	41 per cent.	51 per cent.	30 per cent.	39 per cent.
Seventy-nine towns,	59 per cent.	49 per cent.	70 per cent.	61 per cent.

It appears from this view that the 79 towns of the one group have 257 more schools and 5,110 more pupils than the

11 towns of the other group, but a valuation \$2,258,105 less than that of the other group with which to support them. The schools of the smaller group average 43 pupils each; those of the larger, 27 pupils each. Were the schools of the smaller group as small as those of the larger, they would number 409, instead of 281. Were the schools of the larger group as large as those of the smaller, they would number 352, instead of 538. The towns of the smaller group would seem to be better able than those of the larger to employ superintendents of schools. A plan permitting towns above a valuation of \$2,500,000 to unite with towns below such valuation in employing a district superintendent, with proportional State aid to the latter, would undoubtedly prove mutually satisfactory in many cases.

XXXIX. *Table of Towns and Cities employing Superintendents of Schools, arranged by Counties.*

BY COUNTIES.	Superintendent.	Address.
<i>Barnstable.</i>		
1. Barnstable, . . .	F. W. Kingman, . . .	Hyannis.
2. Bourne, . . .	Burt J. Tice, . . .	Sandwich.
3. Brewster, . . .	Warren M. Dutton, . . .	Harwich.
4. Dennis, . . .	W. E. Chaffin, . . .	West Dennis.
5. Eastham, . . .	Warren M. Dutton, . . .	Harwich.
6. Falmouth, . . .	Asa O. Stanger, . . .	Falmouth.
7. Harwich, . . .	Warren M. Dutton, . . .	Harwich.
8. Mashpee, . . .	Burt J. Tice, . . .	Sandwich.
9. Orleans, . . .	Warren M. Dutton, . . .	Harwich.
10. Provincetown, . . .	C. W. Fearing, . . .	Provincetown.
11. Sandwich, . . .	Burt J. Tice, . . .	Sandwich.
12. Wellfleet, . . .	C. W. Fearing, . . .	Provincetown.
13. Yarmouth, . . .	W. E. Chaffin, . . .	West Dennis.
<i>Berkshire.</i>		
1. Adams, . . .	J. C. Gray, . . .	Adams.
2. Becket, . . .	George L. Lamphier, . . .	Becket.
3. Cheshire, . . .	Earl Ingalls, . . .	Dalton.
4. Dalton, . . .	Earl Ingalls, . . .	Dalton.
5. Egremont, . . .	C. E. Brockway, . . .	Sheffield.
6. Florida, . . .	Elmer F. Howard, . . .	Charlemont.
7. New Marlborough, . . .	C. E. Brockway, . . .	Sheffield.
8. North Adams, . . .	I. Freeman Hall, . . .	North Adams.
9. Pittsfield, . . .	Eugene Bouton, . . .	Pittsfield.
10. Richmond, . . .	C. E. Brockway, . . .	Sheffield.
11. Sheffield, . . .	C. E. Brockway, . . .	Sheffield.
12. Stockbridge, . . .	Alfred W. Rogers, . . .	Stockbridge.
13. Washington, . . .	George L. Lamphier, . . .	Becket.
14. West Stockbridge, . . .	C. E. Brockway, . . .	Sheffield.
15. Williamstown, . . .	Walter G. Mitchell, . . .	Williamstown.

XXXIX. *Towns and Cities employing Superintendents, etc.* — Con.

BY COUNTIES.	Superintendent.	Address.
<i>Bristol.</i>		
1. Acushnet, . . .	E. B. Gray, . . .	Fairhaven.
2. Attleborough, . . .	J. O. Tiffany, . . .	Attleborough.
3. Dartmouth, . . .	E. L. Crocker, . . .	North Dartmouth.
4. Dighton, . . .	Joseph E. Sears, . . .	Dighton.
5. Easton, . . .	E. B. Maglathlin, . . .	North Easton.
6. Fairhaven, . . .	E. B. Gray, . . .	Fairhaven.
7. Fall River, . . .	William C. Bates, . . .	Fall River.
8. Mansfield, . . .	Edward P. Fitts, . . .	Mansfield.
9. New Bedford, . . .	William E. Hatch, . . .	New Bedford.
10. No. Attleborough, . . .	W. C. Hobbs, . . .	North Attleborough.
11. Norton, . . .	A. B. Cole, . . .	Plainville.
12. Raynham, . . .	George C. Howard, . . .	Cochesett.
13. Swansea, . . .	E. M. Thurston, . . .	Swansea.
14. Taunton, . . .	C. F. Boyden, . . .	Taunton.
15. Westport, . . .	E. L. Crocker, . . .	North Dartmouth.
<i>Dukes.</i>		
1. Chilmark, . . .	C. A. Snell, . . .	Edgartown.
2. Cottage City, . . .	C. A. Snell, . . .	Edgartown.
3. Edgartown, . . .	C. A. Snell, . . .	Edgartown.
4. Tisbury, . . .	C. A. Snell, . . .	Edgartown.
5. West Tisbury, . . .	C. A. Snell, . . .	Edgartown.
<i>Essex.</i>		
1. Andover, . . .	George E. Johnson, . . .	Andover.
2. Beverly, . . .	A. L. Safford, . . .	Beverly.
3. Georgetown, . . .	W. O. Cartwright, . . .	Georgetown.
4. Gloucester, . . .	Freeman Putney, . . .	Gloucester.
5. Groveland, . . .	W. O. Cartwright, . . .	Georgetown.
6. Haverhill, . . .	Roscoe D. McKeen, . . .	Haverhill.
7. Lawrence, . . .	John E. Burke, . . .	Lawrence.
8. Lynn, . . .	O. B. Bruce, . . .	Lynn.
9. Manchester, . . .	George P. Armstrong, . . .	Belmont.
10. Marblehead, . . .	John B. Gifford, . . .	Peabody.
11. Methuen, . . .	A. Everett White, . . .	Methuen.
12. Nahant, . . .	O. A. Tuttle, . . .	Nahant.
13. Newburyport, . . .	W. P. Lunt, . . .	Newburyport.
14. North Andover, . . .	George E. Chickering, . . .	Lawrence.
15. Peabody, . . .	John B. Gifford, . . .	Peabody.
16. Rockport, . . .	Mary L. Lincoln, . . .	Rockport.
17. Rowley, . . .	W. O. Cartwright, . . .	Georgetown.
18. Salem, . . .	John W. Perkins, . . .	Salem.
19. Saugus, . . .	C. E. Stevens, . . .	Stoneham.
20. Swampscott, . . .	Gardner P. Balch, . . .	Swampscott.
<i>Franklin.</i>		
1. Bernardston, . . .	J. E. Warren, . . .	Northfield.
2. Buckland, . . .	C. P. Hall, . . .	Shelburne Falls.
3. Charlemont, . . .	Elmer F. Howard, . . .	Charlemont.
4. Colrain, . . .	C. P. Hall, . . .	Shelburne Falls.
5. Conway, . . .	E. W. Goodhue, . . .	Williamsburg.
6. Deerfield, . . .	Chester M. Barton, . . .	Hatfield.
7. Erving, . . .	Lizzie A. Mason, . . .	Orange.

XXXIX. *Towns and Cities employing Superintendents, etc.* — Con.

By COUNTIES.	Superintendent.	Address.
<i>Franklin</i> — Con.		
8. Gill, . . .	J. E. Warren, . . .	Northfield.
9. Greenfield, . . .	D. P. Dame, . . .	Greenfield.
10. Hawley, . . .	Elmer F. Howard, . . .	Charlemont.
11. Leverett, . . .	Chester M. Barton, . . .	Hatfield.
12. Monroe, . . .	Elmer F. Howard, . . .	Charlemont.
13. Montague, . . .	Alfred Turner, . . .	Montague.
14. Northfield, . . .	J. E. Warren, . . .	Northfield.
15. Orange, . . .	Lizzie A. Mason, . . .	Orange.
16. Rowe, . . .	Elmer F. Howard, . . .	Charlemont.
17. Shelburne, . . .	C. P. Hall, . . .	Shelburne Falls.
18. Sunderland, . . .	E. W. Goodhue, . . .	Williamsburg.
19. Warwick, . . .	J. E. Warren, . . .	Northfield.
20. Wendell, . . .	Lizzie A. Mason, . . .	Orange.
21. Whately, . . .	E. W. Goodhue, . . .	Williamsburg.
<i>Hampden</i> .		
1. Agawam, . . .	A. E. Richardson, . . .	Feeding Hills.
2. Blandford, . . .	Belle Tiffany, . . .	Russell.
3. Brimfield, . . .	Mrs. Clara A. Jackson, . . .	Monson.
4. Chester, . . .	George L. Lamphier, . . .	Becket.
5. Chicopee, . . .	C. A. Brodeur, . . .	Chicopee.
6. East Longmeadow, . . .	Mary L. Poland, . . .	Wilbraham.
7. Granville, . . .	A. E. Richardson, . . .	Feeding Hills.
8. Hampden, . . .	Mary L. Poland, . . .	Wilbraham.
9. Holyoke, . . .	Preston W. Search, . . .	Holyoke.
10. Longmeadow, . . .	Mary L. Poland, . . .	Wilbraham.
11. Ludlow, . . .	Mary L. Poland, . . .	Wilbraham.
12. Monson, . . .	Mrs. Clara A. Jackson, . . .	Monson.
13. Palmer, . . .	A. C. Thompson, . . .	Palmer.
14. Southwick, . . .	A. E. Richardson, . . .	Feeding Hills.
15. Springfield, . . .	Thomas M. Balliet, . . .	Springfield.
16. Wales, . . .	Albert Robinson, . . .	Warren.
17. Westfield, . . .	G. H. Danforth, . . .	Westfield.
18. West Springfield, . . .	Ulysses G. Wheeler, . . .	West Springfield.
19. Wilbraham, . . .	Mary L. Poland, . . .	Wilbraham.
<i>Hampshire</i> .		
1. Amherst, . . .	William D. Parkinson, . . .	Amherst.
2. Easthampton, . . .	W. D. Miller, . . .	Easthampton.
3. Granby, . . .	E. H. McLachlin, . . .	South Hadley Falls.
4. Hatfield, . . .	Chester M. Barton, . . .	Hatfield.
5. Middlefield, . . .	George L. Lamphier, . . .	Becket.
6. Northampton, . . .	Alvin F. Pease, . . .	Northampton.
7. South Hadley, . . .	E. H. McLachlin, . . .	South Hadley Falls.
8. Southampton, . . .	W. D. Miller, . . .	Easthampton.
9. Ware, . . .	S. W. Hallett, . . .	Ware.
10. Westhampton, . . .	W. D. Miller, . . .	Easthampton.
11. Williamsburg, . . .	E. W. Goodhue, . . .	Williamsburg.
<i>Middlesex</i> .		
1. Acton, . . .	Edward Dixon, . . .	West Brookfield.
2. Ashby, . . .	Justus Dartt, . . .	Townsend.
3. Ashland, . . .	Alvan R. Lewis, . . .	Hopkinton.

XXXIX. *Towns and Cities employing Superintendents, etc.* — Con.

BY COUNTIES.	Superintendent.	Address.
<i>Middlesex — Con.</i>		
4. Ayer, . . .	Edmund P. Barker, . . .	Ayer.
5. Bedford, . . .	L. T. McKenney, . . .	Bedford.
6. Belmont, . . .	George P. Armstrong, . . .	Belmont.
7. Billerica, . . .	L. T. McKenney, . . .	Bedford.
8. Boxborough, . . .	Mrs. Jennie A. Littlefield, . . .	Boxborough.
9. Burlington, . . .	L. T. McKenney, . . .	Bedford.
10. Cambridge, . . .	Francis Cogswell, . . .	Cambridge.
Cambridge, . . .	Mary A. Lewis, Ass't, . . .	Cambridge.
11. Carlisle, . . .	George H. Knowlton, . . .	Chelmsford.
12. Chelmsford, . . .	George H. Knowlton, . . .	Chelmsford.
13. Concord, . . .	William L. Eaton, . . .	Concord.
14. Dracut, . . .	Junius C. Knowlton, . . .	Wamesit.
15. Dunstable, . . .	George H. Knowlton, . . .	Chelmsford.
16. Everett, . . .	Randall J. Condon, . . .	Everett.
17. Framingham, . . .	S. F. Blodgett, . . .	South Framingham.
18. Holliston, . . .	Fred C. Tenney, . . .	Holliston.
19. Hopkinton, . . .	Alvan R. Lewis, . . .	Hopkinton.
20. Hudson, . . .	W. P. Kelly, . . .	Hudson.
21. Lexington, . . .	J. I. Buck, . . .	Lexington.
22. Lincoln, . . .	L. T. McKenney, . . .	Bedford.
23. Littleton, . . .	Edmund P. Barker, . . .	Ayer.
24. Lowell, . . .	A. K. Whitcomb, . . .	Lowell.
25. Malden, . . .	George E. Gay, . . .	Malden.
26. Marlborough, . . .	J. A. Pitman, . . .	Marlborough.
27. Maynard, . . .	Elmer L. Sawyer, . . .	Maynard.
28. Medford, . . .	C. H. Morss, . . .	Medford.
29. Melrose, . . .	B. F. Robinson, . . .	Melrose.
30. Natick, . . .	Frank E. Parlin, . . .	Natick.
31. Newton, . . .	George I. Aldrich, . . .	Newtonville.
32. North Reading, . . .	Junius C. Knowlton, . . .	Wamesit.
33. Pepperell, . . .	Alfred O. Tower, . . .	Pepperell.
34. Reading, . . .	Charles E. Hussey, . . .	Wakefield.
35. Sherborn, . . .	Fred C. Tenney, . . .	Holliston.
36. Shirley, . . .	Charles L. Clay, . . .	Harvard.
37. Somerville, . . .	Gordon A. Southworth, . . .	Somerville.
38. Stoneham, . . .	C. E. Stevens, . . .	Stoneham.
39. Stow, . . .	J. Sidney Moulton, . . .	Stow.
40. Sudbury, . . .	Harrison G. Fay, . . .	Sudbury.
41. Tewksbury, . . .	Junius C. Knowlton, . . .	Wamesit.
42. Townsend, . . .	Justus Dartt, . . .	Townsend.
43. Tyngsborough, . . .	Junius C. Knowlton, . . .	Wamesit.
44. Wakefield, . . .	Charles E. Hussey, . . .	Wakefield.
45. Waltham, . . .	Henry G. Whittemore, . . .	Waltham.
46. Watertown, . . .	C. S. Ham, . . .	Watertown.
47. Wayland, . . .	Fairfield Whitney, . . .	Oakdale.
48. Westford, . . .	Edmund P. Barker, . . .	Ayer.
49. Weston, . . .	Charles M. Eaton, . . .	Weston.
50. Winchester, . . .	H. M. Walratt, . . .	Needham.
51. Woburn, . . .	Thomas Emerson, . . .	Woburn.
<i>Norfolk.</i>		
1. Bellingham, . . .	Elmer E. Sherman, . . .	Hopedale.
2. Braintree, . . .	Irving W. Horne, . . .	Braintree.

XXXIX. *Towns and Cities employing Superintendents, etc.* — Con.

BY COUNTIES.	Superintendent.	Address.
<i>Norfolk</i> — Con.		
3. Brookline, . . .	Samuel T. Dutton, . . .	Brookline.
4. Canton, . . .	J. S. Perkins, . . .	Canton.
5. Cohasset, . . .	Elmer L. Curtiss, . . .	Hingham.
6. Dedham, . . .	Roderick W. Hine, . . .	Dedham.
7. Dover, . . .	Frank Smith, . . .	Dover.
8. Foxborough, . . .	Jefferson R. Potter, . . .	Walpole.
9. Franklin, . . .	E. D. Daniels, . . .	Franklin.
10. Medway, . . .	Fred C. Tenney, . . .	Holliston.
11. Millis, . . .	D. H. Whipple, . . .	Millis.
12. Milton, . . .	Myron W. Richardson, . . .	Milton.
13. Needham, . . .	H. M. Walratt, . . .	Needham.
14. Norwood, . . .	H. Allen Halstead, . . .	Norwood.
15. Quincy, . . .	H. W. Lull, . . .	Quincy.
16. Sharon, . . .	Edward P. Fitts, . . .	Mansfield.
17. Stoughton, . . .	Edward P. Fitts, . . .	Mansfield.
18. Walpole, . . .	Jefferson R. Potter, . . .	Walpole.
19. Wellesley, . . .	Marshall L. Perrin, . . .	Wellesley.
20. Weymouth, . . .	I. M. Norcross, . . .	Weymouth.
21. Wrentham, . . .	A. B. Cole, . . .	Plainville.
<i>Plymouth.</i>		
1. Abington, . . .	W. H. Sanderson, . . .	Bridgewater.
2. Bridgewater, . . .	W. H. Sanderson, . . .	Bridgewater.
3. Brockton, . . .	B. B. Russell, . . .	Brockton.
4. Brockton, . . .	Etta A. Blaisdell, Ass't, . . .	Brockton.
5. Duxbury, . . .	E. L. Willard, . . .	Marshfield Hills.
6. East Bridgewater, . . .	George C. Howard, . . .	Cochesett.
7. Hanover, . . .	A. J. Curtis, . . .	Hanover.
8. Hanson, . . .	A. J. Curtis, . . .	Hanover.
9. Hingham, . . .	Elmer L. Curtiss, . . .	Hingham.
10. Hull, . . .	Elmer L. Curtiss, . . .	Hingham.
11. Kingston, . . .	Helen Holmes, . . .	Kingston.
12. Marshfield, . . .	E. L. Willard, . . .	Marshfield Hills.
13. Mattapoisett, . . .	E. B. Gray, . . .	Fairhaven.
14. Middleborough, . . .	Asher J. Jacoby, . . .	Middleborough.
15. Norwell, . . .	A. J. Curtis, . . .	Hanover.
16. Plymouth, . . .	F. J. Heavens, . . .	Plymouth.
17. Scituate, . . .	E. L. Willard, . . .	Marshfield Hills.
18. West Bridgewater, . . .	George C. Howard, . . .	Cochesett.
19. Whitman, . . .	F. H. Nickerson, . . .	Whitman.
<i>Suffolk.</i>		
1. Boston, . . .	Edwin P. Seaver, . . .	Boston.
Boston, . . .	Ellis Peterson, Supervisor, . . .	Boston.
Boston, . . .	Robert C. Metcalf, " . . .	Boston.
Boston, . . .	George H. Conley, " . . .	Boston.
Boston, . . .	George H. Martin, " . . .	Boston.
Boston, . . .	Walter S. Parker, " . . .	Boston.
Boston, . . .	Miss Sarah L. Arnold, " . . .	Boston.
2. Chelsea, . . .	W. H. Small, . . .	Chelsea.
3. Revere, . . .	Frank J. Peaslee, . . .	Revere.
4. Winthrop, . . .	F. A. Douglas, . . .	Winthrop.



XXXIX. *Towns and Cities employing Superintendents, etc.*—Con.

BY COUNTIES.	Superintendent.	Address.
<i>Worcester.</i>		
1. Athol, . . .	W. S. Ward, . . .	Athol.
2. Barre, . . .	Mortimer H. Bowman, . . .	Barre.
3. Berlin, . . .	Nelson G. Howard, . . .	Northborough.
4. Blackstone, . . .	Josiah B. Davis, . . .	Millville.
5. Bolton, . . .	Charles L. Clay, . . .	Harvard.
6. Boylston, . . .	Charles L. Clay, . . .	Harvard.
7. Brookfield, . . .	W. A. Hoyt, . . .	North Brookfield.
8. Clinton, . . .	Charles L. Hunt, . . .	Clinton.
9. Douglas, . . .	W. W. Brown, . . .	Douglas.
10. Dudley, . . .	C. S. Lyman, . . .	Oxford.
11. Fitchburg, . . .	Joseph G. Edgerly, . . .	Fitchburg.
12. Gardner, . . .	Louis P. Nash, . . .	Gardner.
13. Grafton, . . .	Stanley H. Holmes, . . .	Grafton.
14. Hardwick, . . .	Mortimer H. Bowman, . . .	Barre.
15. Harvard, . . .	Charles L. Clay, . . .	Harvard.
16. Holden, . . .	Etta L. Chapman, . . .	Leicester.
17. Hopedale, . . .	Elmer E. Sherman, . . .	Hopedale.
18. Hubbardston, . . .	C. E. Putney, . . .	Baldwinville.
19. Leicester, . . .	Etta L. Chapman, . . .	Leicester.
20. Leominster, . . .	Thomas E. Thompson, . . .	Leominster.
21. Lunenburg, . . .	D. B. Locke, . . .	Lunenburg.
22. Mendon, . . .	Elmer E. Sherman, . . .	Hopedale.
23. Milford, . . .	C. W. Haley, . . .	Milford.
24. Millbury, . . .	C. S. Lyman, . . .	Oxford.
25. North Brookfield, . . .	W. A. Hoyt, . . .	North Brookfield.
26. Northborough, . . .	Nelson G. Howard, . . .	Northborough.
27. Northbridge, . . .	S. A. Melcher, . . .	Whitinsville.
28. Oxford, . . .	C. S. Lyman, . . .	Oxford.
29. Petersham, . . .	Mortimer H. Bowman, . . .	Barre.
30. Phillipston, . . .	C. E. Putney, . . .	Baldwinville.
31. Princeton, . . .	George R. Pinkham, . . .	Princeton.
32. Royalston, . . .	C. E. Putney, . . .	Baldwinville.
33. Shrewsbury, . . .	Nelson G. Howard, . . .	Northborough.
34. Southborough, . . .	Nelson G. Howard, . . .	Northborough.
35. Southbridge, . . .	J. T. Clarke, . . .	Southbridge.
36. Spencer, . . .	W. C. Fickett, . . .	Spencer.
37. Sterling, . . .	George R. Pinkham, . . .	Princeton.
38. Sturbridge, . . .	Edward Dixon, . . .	West Brookfield.
39. Templeton, . . .	C. E. Putney, . . .	Baldwinville.
40. Upton, . . .	Stanley H. Holmes, . . .	Grafton.
41. Uxbridge, . . .	Charles H. Bates, . . .	Uxbridge.
42. Warren, . . .	Albert Robinson, . . .	Warren.
43. Webster, . . .	A. H. Morse, . . .	Webster.
44. West Boylston, . . .	Fairfield Whitney, . . .	Oakdale.
45. West Brookfield, . . .	Edward Dixon, . . .	West Brookfield.
46. Westborough, . . .	H. C. Waldron, . . .	Westborough.
47. Westminster, . . .	George R. Pinkham, . . .	Princeton.
48. Winchendon, . . .	D. B. Locke, . . .	Winchendon.
49. Worcester, . . .	C. F. Carroll, . . .	Worcester.
Worcester, . . .	Besse E. Howes, Ass't, . . .	Worcester.

*XL. Alphabetical Table of Superintendents of Schools, with their Salaries, Addresses and Superintendencies.*

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Aldrich, George I., . . .	\$3,800	Newtonville, . . .	Newton.
Armstrong, George P., . . .	1,400	Belmont, . . . .	Belmont, Manchester.
Arnold, Sarah L., . . . .	3,780	Boston, . . . .	Boston.
Balch, Gardner P., <sup>1</sup> . . .	1,800	Swampscott, . . .	Swampscott.
Balliet, Thomas M., . . .	4,000	Springfield, . . .	Springfield.
Barker, Edmund P., . . .	1,600	Ayer, . . . .	Ayer, Littleton, Westford.
Barton, Chester M., . . .	1,500	Hatfield, . . . .	Deerfield, Hatfield, Leverett.
Bates, Charles H., <sup>1</sup> . . .	1,800	Uxbridge, . . . .	Uxbridge.
Bates, William C., . . .	3,300	Fall River, . . . .	Fall River.
Blaisdell, Miss Etta A., Ass't,	1,000	Brockton, . . . .	Brockton.
Blodgett, S. F., . . . .	1,500	South Framingham, .	Framingham.
Bouton, Eugene, . . . .	2,200	Pittsfield, . . . .	Pittsfield.
Bowman, Mortimer H., . .	1,500	Barre, . . . .	Barre, Hardwick, Petersham.
Boyden, C. F., . . . .	2,150	Taunton, . . . .	Taunton.
Brockway, Clarence E., . .	1,500	Sheffield, . . . .	Egremont, New Marlborough, Richmond, Sheffield, West Stockbridge.
Brodeur, C. A., . . . .	1,800	Chicopee, . . . .	Chicopee.
Brown, W. W., <sup>2</sup> . . . .	100	Douglas, . . . .	Douglas.
Bruce, O. B., . . . .	2,750	Lynn, . . . .	Lynn.
Buck, J. I., <sup>1</sup> . . . .	1,800	Lexington, . . . .	Lexington.
Burke, John E., . . . .	3,000	Lawrence, . . . .	Lawrence.
Carroll, C. F., . . . .	3,750	Worcester, . . . .	Worcester.
Cartwright, W. O., . . .	1,500	Georgetown, . . .	Georgetown, Groveland, Row- ley.
Chapman, Miss Etta L., . .	1,500	Leicester, . . . .	Holden, Leicester.
Chaffin, W. E., . . . .	1,500	West Dennis, . . .	Dennis, Yarmouth.
Chickering, George E., . .	550	Lawrence, . . . .	North Andover.
Clarke, J. T., . . . .	1,400	Southbridge, . . .	Southbridge.
Clay, Charles L., . . . .	1,500	Harvard, . . . .	Bolton, Boylston, Harvard, Shirley.
Cogswell, Francis, . . . .	3,000	Cambridge, . . . .	Cambridge.
Cole, A. B., . . . .	1,500	Plainville, . . . .	Norton, Wrentham.
Condon, Randall J., . . .	1,800	Everett, . . . .	Everett.
Conley, George H., . . .	3,780	Boston, . . . .	Boston.
Crocker, E. L., . . . .	1,500	North Dartmouth, .	Dartmouth, Westport.
Curtis, A. J., . . . .	1,500	Hanover, . . . .	Hanover, Hanson, Norwell.
Curtiss, Elmer L., . . .	2,100	Hingham, . . . .	Cohasset, Hingham, Hull.

<sup>1</sup> Unites teaching with supervising.

<sup>2</sup> Belongs to the school committee, or unites with supervising some other business or profession than teaching.

*XL. Alphabetical Table of Superintendents, etc. — Continued.*

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Dame, D. P., . . . .	\$1,750	Greenfield, . . . .	Greenfield.
Danforth, G. H., . . . .	2,200	Westfield, . . . .	Westfield.
Daniels, E. D., <sup>1</sup> . . . .	1,800	Franklin, . . . .	Franklin.
Dartt, Justus, . . . .	1,500	Townsend, . . . .	Ashby, Townsend.
Davis, Josiah B., . . . .	888.89	Millville, . . . .	Blackstone.
Dixon, Edward, . . . .	1,550	West Brookfield, . . . .	Acton, Sturbridge, West Brookfield.
Douglas, Frank A., <sup>1</sup> . . . .	1,500	Winthrop, . . . .	Winthrop.
Dutton, Samuel T., . . . .	4,000	Brookline, . . . .	Brookline.
Dutton, Warren M., . . . .	1,500	Harwich, . . . .	Brewster, Eastham, Harwich, Orleans.
Eaton, Charles M., <sup>1</sup> . . . .	1,400	Weston, . . . .	Weston.
Eaton, William L., <sup>1</sup> . . . .	2,400	Concord, . . . .	Concord.
Edgerly, Joseph G., . . . .	2,700	Fitchburg, . . . .	Fitchburg.
Emerson, Thomas, . . . .	2,000	Woburn, . . . .	Woburn.
Fay, Harrison G., <sup>1</sup> . . . .	1,000	Sudbury, . . . .	Sudbury.
Fearing, Clarence W., . . . .	1,500	Provincetown, . . . .	Provincetown, Wellfleet.
Fickett, W. C., . . . .	1,800	Spencer, . . . .	Spencer.
Fitts, Edward P., . . . .	1,650	Mansfield, . . . .	Mansfield, Sharon, Stoughton.
Gay, George E., . . . .	2,500	Malden, . . . .	Malden.
Gray, E. B., . . . .	1,500	Fairhaven, . . . .	Acushnet, Fairhaven, Matta-
Gray, J. C., . . . .	2,000	Adams, . . . .	poisett. Adams.
Gifford, John B., . . . .	2,000	Peabody, . . . .	Marblehead, Peabody.
Goodhue, E. W., . . . .	1,500	Williamsburg, . . . .	Conway, Sunderland, Whately, Williamsburg.
Haley, Charles W., . . . .	1,600	Milford, . . . .	Milford.
Hall, C. P., . . . .	1,500	Shelburne Falls, . . . .	Buckland, Colrain, Shelburne.
Hall, I. Freeman, . . . .	2,500	North Adams, . . . .	North Adams.
Hallett, S. W., <sup>1</sup> . . . .	1,800	Ware, . . . .	Ware.
Halstead, H. Allen, <sup>1</sup> . . . .	1,300	Norwood, . . . .	Norwood.
Ham, C. S., <sup>1</sup> . . . .	1,900	Watertown, . . . .	Watertown.
Hatch, William E., . . . .	3,000	New Bedford, . . . .	New Bedford.
Heavens, F. J., . . . .	2,000	Plymouth, . . . .	Plymouth.
Hine, Roderick W., . . . .	2,000	Dedham, . . . .	Dedham.
Hobbs, W. C., . . . .	1,500	North Attleborough, . . . .	North Attleborough.*
Holmes, Miss Helen, <sup>2</sup> . . . .	250	Kingston, . . . .	Kingston.
Holmes, Stanley H., . . . .	1,750	Grafton, . . . .	Grafton, Upton.
Horne, Irving W., . . . .	1,316.67	Braintree, . . . .	Braintree.
Howard, Elmer F., . . . .	1,500	Charlemont, . . . .	Charlemont, Florida, Hawley, Munroe, Rowe.

<sup>1</sup>, <sup>2</sup> See footnotes on page 162.

*XL. Alphabetical Table of Superintendents, etc. — Continued.*

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Howard, George C., . . .	\$1,500	Cochesett, . . .	East Bridgewater, Raynham, West Bridgewater.
Howard, Nelson G., . . .	1,500	Northborough, . . .	Berlin, Northborough, Shrews- bury, Southborough.
Howes, Miss Besse E., Ass't,	1,800	Worcester, . . .	Worcester.
Hoyt, W. A., . . . . .	1,500	North Brookfield, . .	Brookfield, North Brookfield.
Hunt, Charles L., . . . .	1,800	Clinton, . . . . .	Clinton.
Hussey, Charles E., . . .	2,500	Wakefield, . . . . .	Reading, Wakefield.
Ingalls, Earl, . . . . .	1,500	Dalton, . . . . .	Cheshire, Dalton.
Jackson, Mrs. Clara A., . .	1,500	Monson, . . . . .	Brimfield, Monson.
Jacoby, Asher J., . . . .	1,700	Middleborough, . . .	Middleborough.
Johnson, George E., . . .	1,300	Andover, . . . . .	Andover.
Kelly, W. P., . . . . .	1,500	Hudson, . . . . .	Hudson.
Kingman, F. W., . . . . .	1,500	Hyannis, . . . . .	Barnstable.
Knowlton, George H., . . .	1,500	Chelmsford, . . . .	Carlisle, Chelmsford, Dunsta- ble.
Knowlton, Junius C., . . .	1,650	Wamesit, . . . . .	Dracut, North Reading, Tewksbury, Tyngsborough.
Lamphier, George L., . . .	1,500	Becket, . . . . .	Becket, Chester, Middlefield, Washington.
Lewis, Alvan R., . . . . .	1,500	Hopkinton, . . . . .	Ashland, Hopkinton.
Lewis, Miss Mary A., Ass't,	1,000	Cambridge, . . . . .	Cambridge.
Lincoln, Miss Mary L., . . .	600	Rockport, . . . . .	Rockport.
Littlefield, Mrs. Jennie A., .	35	Boxborough, . . . .	Boxborough.
Locke, D. B., . . . . .	1,600	Winchendon, . . . .	Lunenburg, Winchendon.
Lull, H. W., . . . . .	2,400	Quincy, . . . . .	Quincy.
Lunt, W. P., . . . . .	1,200	Newburyport, . . . .	Newburyport.
Lyman, Cassius S., . . . .	1,600	Oxford, . . . . .	Dudley, Millbury, Oxford.
Maglathlin, Edward B., . . .	1,500	North Easton, . . . .	Easton.
Martin, George H., . . . .	3,780	Boston, . . . . .	Boston.
Mason, Miss Lizzie A., . . .	1,500	Orange, . . . . .	Erving, Orange, Wendell.
McKeen, Roscoe D., . . . .	2,000	Haverhill, . . . . .	Haverhill.
McKenney, L. T., . . . . .	1,750	Bedford, . . . . .	Bedford, Billerica, Burlington, Lincoln.
McLachlin, E. H., . . . . .	1,500	South Hadley Falls, . .	Granby, South Hadley.
Melcher, S. A., <sup>1</sup> . . . . .	2,000	Whitinsville, . . . .	Northbridge.
Metcalf, Robert C., . . . .	3,780	Boston, . . . . .	Boston.
Miller, W. D., . . . . .	1,600	Easthampton, . . . .	Easthampton, Southamton, Westhampton.
Mitchell, Walter G., . . . .	1,200	Williamstown, . . . .	Williamstown.
Morse, A. H., <sup>1</sup> . . . . .	1,600	Webster, . . . . .	Webster.
Morss, C. H., . . . . .	2,300	Medford, . . . . .	Medford.
Moulton, J. Sidney, <sup>2</sup> . . . .	100	Stow, . . . . .	Stow.
Nash, Louis P., . . . . .	2,500	Gardner, . . . . .	Gardner.

<sup>1</sup>, <sup>2</sup> See footnotes on page 162.

*XL. Alphabetical Table of Superintendents, etc. — Continued.*

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Nickerson, F. H., <sup>1</sup> . . .	\$1,800	Whitman, . . .	Whitman.
Norcross, I. M., . . .	1,800	Weymouth Centre, .	Weymouth.
Parkinson, William D., .	1,500	Amherst, . . .	Amherst.
Parlin, Frank E., <sup>2</sup> . . .	1,500	Natick, . . .	Natick.
Parker, Walter S., . . .	3,780	Boston, . . .	Boston.
Pease, Alvin F., . . .	1,800	Northampton, . .	Northampton.
Peaslee, Frank J., . . .	1,800	Revere, . . .	Revere.
Perkins, J. S., . . .	1,800	Canton, . . .	Canton.
Perkins, John W., . . .	2,500	Salem, . . .	Salem.
Perrin, Marshall L., <sup>1</sup> . .	1,300	Wellesley, . . .	Wellesley.
Peterson, Ellis, . . .	3,780	Boston, . . .	Boston.
Pinkham, George R., . .	1,500	Princeton, . . .	Princeton, Sterling, Westminster.
Pitman, J. A., . . .	2,000	Marlborough, . . .	Marlborough.
Poland, Mary L., . . .	1,500	Wilbraham, . . .	East Longmeadow, Hampden, Longmeadow, Ludlow, Wilbraham.
Potter, Jefferson R., . .	1,500	Walpole, . . .	Foxborough, Walpole.
Putney, Freeman, . . .	2,300	Gloucester, . . .	Gloucester.
Putney, C. E., . . .	1,500	Baldwenville, . . .	Hubbardston, Phillipston, Royalston, Templeton.
Richardson, A. E., . . .	1,500	Feeding Hills, . .	Agawam, Granville, Southwick.
Richardson, Myron W., .	2,500	Milton, . . .	Milton.
Robinson, Albert, . . .	1,600	Warren, . . .	Warren, Wales.
Robinson, B. F., . . .	2,000	Melrose, . . .	Melrose.
Rogers, Alfred W., <sup>1</sup> . . .	500	Stockbridge, . . .	Stockbridge.
Russoll, B. B., . . .	2,700	Brockton, . . .	Brockton.
Safford, A. L., . . .	1,800	Beverly, . . .	Beverly.
Sanderson, W. H., . . .	2,000	Bridgewater, . . .	Abington, Bridgewater.
Sawyer, Elmer L., <sup>1</sup> . . .	1,100	Maynard, . . .	Maynard.
Search, Preston W., . . .	2,800	Holyoke, . . .	Holyoke.
Sears, Joseph E., <sup>2</sup> . . .	200	Dighton, . . .	Dighton.
Seaver, Edwin P., . . .	4,200	Boston, . . .	Boston.
Sherman, Elmer E., . . .	1,500	Hopedale, . . .	Bellingham, Hopedale, Mendon.
Small, W. H., . . .	2,400	Chelsea, . . .	Chelsea.
Smith, Frank, <sup>2</sup> . . .	75	Dover, . . .	Dover.
Snell, Clifton A., . . .	1,500	Edgartown, . . .	Chilmark, Cottage City, Edgartown, Tisbury, West Tisbury.
Southworth, Gordon A., .	2,800	Somerville, . . .	Somerville.
Stanger, Asa O., . . .	1,400	Falmouth, . . .	Falmouth.
Stevens, C. E., . . .	2,000	Stoneham, . . .	Saugus, Stoneham.
Tenney, Fred C., . . .	1,750	Holliston, . . .	Holliston, Medway, Sherborn.

<sup>1</sup>, <sup>2</sup> See footnotes on page 162.

*XL. Alphabetical Table of Superintendents, etc. — Concluded.*

SUPERINTENDENT.	Salary.	Address.	Superintendency.
Thompson, A. C., . . .	\$1,600	Palmer, . . .	Palmer.
Thompson, Thomas E., .	1,500	Leominster, . . .	Leominster.
Thurston, E. M., <sup>2</sup> . . .	100	Swansea, . . .	Swansea.
Tice, Burt J., . . .	1,500	Sandwich, . . .	Bourne, Mashpee, Sandwich.
Tiffany, Miss Belle, <sup>2</sup> . .	70	Russell, . . .	Blandford.
Tiffany, J. O., . . .	1,200	Attleborough, . . .	Attleborough.
Tower, Alfred O., <sup>1</sup> . . .	1,400	Pepperell, . . .	Pepperell.
Turner, Alfred, . . .	1,200	Montague, . . .	Montague.
Tuttle, O. A., <sup>1</sup> . . .	1,200	Nahant, . . .	Nahant.
Waldron, H. C., <sup>1</sup> . . .	1,600	Westborough, . . .	Westborough.
Walradt, Henry M., . . .	1,800	Needham, . . .	Needham, Winchester.
Ward, W. Scott, . . .	1,500	Athol, . . .	Athol.
Warren, Julius E., . . .	1,500	Northfield, . . .	Bernardston, Gill, Northfield, Warwick.
White, A. Everett, . . .	1,200	Methuen, . . .	Methuen.
Willard, E. L., . . .	1,500	Marshfield Hills, . .	Marshfield, Duxbury, Scituate.
Wheeler, Ulysses G., . .	1,700	West Springfield, . .	West Springfield.
Whipple, D. H., <sup>1</sup> . . .	760	Millis, . . .	Millis.
Whitcomb, Arthur K., . .	3,000	Lowell, . . .	Lowell.
Whittemore, Henry, . . .	2,300	Waltham, . . .	Waltham.
Whitney, Fairfield, . . .	1,500	Oakdale, . . .	Wayland, West Boylston.

<sup>1, 2</sup> See footnotes on page 162.

## TEACHERS' INSTITUTES.

*Number and Attendance.* — The following table gives various data about the institutes held in 1897 : —

*XLI. Table showing the Location of Institutes for 1897, the Date of holding, the Number of Towns represented and Persons attending, with the Number of Exercises conducted.*

WHERE HELD.	Date.	Number of Towns rep- resented.	Number of Members. <sup>1</sup>	Number of Exercises.	By Whom conducted.
Barnstable, . . .	Nov. 4,	15	213	14	J. T. Prince.
Charlemonst, . . .	June 5,	7	30	6	G. T. Fletcher.
Cummington, . . .	Oct. 8,	8	77	6	G. T. Fletcher.

*XLI. Table showing the Location of Institutes, etc. — Concluded.*

WHERE HELD.	Date.	Number of Towns represented.	Number of Members.	Number of Exercises.	By Whom conducted.
Fitchburg, . .	Oct. 1,	15	390	11	J. T. Prince.
Framingham, . .	Oct. 6,	12	274	11	J. T. Prince.
Greenfield, . .	Feb. 26,	15	105	10	G. T. Fletcher.
Greenwich, . .	April 23,	6	76	7	G. T. Fletcher.
Hudson, . .	Oct. 5,	13	158	9	J. W. MacDonald.
Lee, . .	Oct. 28,	9	98	6	G. T. Fletcher.
Mansfield, . .	Oct. 27,	10	198	15	J. T. Prince.
Newton, . .	Nov. 29,	3	172	11	J. T. Prince.
North Adams, . .	Oct. 22,	10	259	12	G. T. Fletcher.
Northampton, {	June 28 } to July 3, }	97	417	59	G. T. Fletcher.
Rockland, . .	Nov. 17,	10	163	16	J. W. MacDonald.
Salem, . .	July 6-10,	81	695	199	J. W. MacDonald.
Sandisfield, . .	June 11,	5	33	8	G. T. Fletcher.
Somerset, . .	Oct. 13,	8	106	11	J. T. Prince.
Wareham, . .	Nov. 16,	6	85	10	J. W. MacDonald.
Westfield, . .	Oct. 7,	16	333	11	G. T. Fletcher.
Worcester, . .	May 3,	20	766	24	A. W. Edson.
Totals, . 20,	- -	366	4,648	456	

If to the foregoing data there are added corresponding data for the drawing institutes held by Mr. Bailey, then the total number of institutes becomes 23 ; the number of persons, almost wholly teachers, in attendance, 4,805 ; and the number of exercises, 475. These statistics include neither the hundreds of visitors that attended the day meetings but were not enrolled as members nor the thousands that, in the aggregate, attended the more general exercises of the evening.

*Towns represented.* — To show how far-reaching the work of the institutes is, the distribution among the towns of the teachers in attendance is given : —

*XLII. Table giving the Towns represented in the Institutes held in 1897, with the Number of Persons, mainly Teachers, attending from Each Town.*

TOWNS.	Teachers.	TOWNS.	Teachers.
Abington, . . . . .	26	Cheshire, . . . . .	8
Acton, . . . . .	1	Chesterfield, . . . . .	10
Adams, . . . . .	47	Chicopee, . . . . .	61
Agawam, . . . . .	12	Clarksburg, . . . . .	7
Amesbury, . . . . .	6	Clinton, . . . . .	47
Amherst, . . . . .	28	Colrain, . . . . .	11
Arlington, . . . . .	1	Concord, . . . . .	17
Ashburnham, . . . . .	19	Conway, . . . . .	5
Ashby, . . . . .	5	Cummington, . . . . .	46
Ashfield, . . . . .	9	Dalton, . . . . .	2
Ashland, . . . . .	10	Dana, . . . . .	10
Athol, . . . . .	2	Danvers, . . . . .	26
Attleborough, . . . . .	50	Deerfield, . . . . .	15
Ayer, . . . . .	1	Dennis, . . . . .	14
Barnstable, . . . . .	73	Dighton, . . . . .	13
Barre, . . . . .	2	Dudley, . . . . .	14
Becket, . . . . .	1	Dunstable, . . . . .	2
Belchertown, . . . . .	10	East Bridgewater, . . . . .	12
Berkley, . . . . .	9	East Longmeadow, . . . . .	9
Berlin, . . . . .	8	Eastham, . . . . .	3
Bernardston, . . . . .	13	Easthampton, . . . . .	12
Beverly, . . . . .	34	Easton, . . . . .	29
Billerica, . . . . .	1	Egremont, . . . . .	1
Blandford, . . . . .	4	Enfield, . . . . .	8
Bolton, . . . . .	4	Essex, . . . . .	8
Boston, . . . . .	19	Everett, . . . . .	7
Bourne, . . . . .	13	Fall River, . . . . .	36
Boxford, . . . . .	4	Falmouth, . . . . .	7
Boylston, . . . . .	12	Fitchburg, . . . . .	222
Brewster, . . . . .	6	Florida, . . . . .	8
Bridgewater, . . . . .	1	Foxborough, . . . . .	17
Brockton, . . . . .	18	Framingham, . . . . .	170
Brookfield, . . . . .	2	Freetown, . . . . .	4
Brookline, . . . . .	4	Gardner, . . . . .	2
Buckland, . . . . .	4	Georgetown, . . . . .	9
Burlington, . . . . .	1	Gill, . . . . .	2
Cambridge, . . . . .	5	Goshen, . . . . .	3
Canton, . . . . .	21	Grafton, . . . . .	29
Carver, . . . . .	7	Granby, . . . . .	4
Charlemont, . . . . .	19	Granville, . . . . .	9
Charlton, . . . . .	2	Great Barrington, . . . . .	23
Chatham, . . . . .	16	Greenfield, . . . . .	43
Chelmsford, . . . . .	6	Greenwich, . . . . .	33
Chelsea, . . . . .	24	Groveland, . . . . .	11



*XLIII. Table giving the Towns, etc. — Continued.*

TOWNS.	Teachers.	TOWNS.	Teachers.
Hadley, . . . .	15	Monson, . . . .	4
Hamilton, . . . .	5	Montague, . . . .	33
Hancock, . . . .	3	Monterey, . . . .	6
Hanover, . . . .	15	Montgomery, . . . .	3
Hanson, . . . .	11	Nahant, . . . .	4
Hardwick, . . . .	7	Natick, . . . .	4
Harvard, . . . .	12	New Ashford, . . . .	1
Harwich, . . . .	15	New Marlborough, . . . .	10
Hatfield, . . . .	14	New Salem, . . . .	14
Haverhill, . . . .	3	Newbury, . . . .	1
Hawley, . . . .	3	Newton, . . . .	145
Heath, . . . .	12	North Adams, . . . .	94
Hingham, . . . .	17	North Andover, . . . .	2
Hinsdale, . . . .	7	North Reading, . . . .	1
Holliston, . . . .	13	Northampton, . . . .	33
Holyoke, . . . .	10	Northborough, . . . .	12
Hopkinton, . . . .	19	Northfield, . . . .	1
Hudson, . . . .	33	Norton, . . . .	11
Huntington, . . . .	3	Norwell, . . . .	12
Hyde Park, . . . .	2	Orange, . . . .	8
Ipswich, . . . .	9	Orleans, . . . .	7
Lakeville, . . . .	4	Otis, . . . .	4
Lawrence, . . . .	4	Oxford, . . . .	19
Lee, . . . .	17	Palmer, . . . .	8
Leicester, . . . .	1	Peabody, . . . .	40
Lenox, . . . .	18	Pelham, . . . .	2
Leominster, . . . .	52	Pembroke, . . . .	9
Leverett, . . . .	1	Peru, . . . .	5
Leyden, . . . .	3	Pittsfield, . . . .	92
Littleton, . . . .	2	Plainfield, . . . .	7
Longmeadow, . . . .	4	Plympton, . . . .	1
Lowell, . . . .	12	Prescott, . . . .	5
Ludlow, . . . .	15	Princeton, . . . .	10
Lunenburg, . . . .	9	Provincetown, . . . .	22
Lynn, . . . .	57	Raynham, . . . .	8
Malden, . . . .	18	Reading, . . . .	5
Manchester, . . . .	7	Rehoboth, . . . .	17
Mansfield, . . . .	19	Richmond, . . . .	5
Marblehead, . . . .	28	Rochester, . . . .	6
Marion, . . . .	10	Rockland, . . . .	36
Marlborough, . . . .	60	Rockport, . . . .	16
Mashpee, . . . .	6	Rowe, . . . .	4
Mattapoisett, . . . .	7	Rowley, . . . .	5
Medford, . . . .	4	Royalston, . . . .	1
Medway, . . . .	18	Russell, . . . .	5
Melrose, . . . .	4	Salem, . . . .	74
Merrimac, . . . .	6	Sandisfield, . . . .	11
Methuen, . . . .	3	Sandwich, . . . .	14
Middleborough, . . . .	3	Saugus, . . . .	13
Middleton, . . . .	4	Savoy, . . . .	4
Milford, . . . .	1	Scituate, . . . .	3
Millbury, . . . .	22	Seekonk, . . . .	3
Monroe, . . . .	2	Sharon, . . . .	9

XLIII. Table giving the Towns, etc. — Concluded.

TOWNS.	Teachers.	TOWNS.	Teachers.
Sheffield, . . . .	11	Watertown, . . . .	27
Sherborn, . . . .	6	Wayland, . . . .	4
Shirley, . . . .	4	Webster, . . . .	8
Somerset, . . . .	13	Wellesley, . . . .	22
Somerville, . . . .	6	Wellfleet, . . . .	5
South Hadley, . . . .	6	Wendell, . . . .	3
Southampton, . . . .	6	Wenham, . . . .	2
Southborough, . . . .	9	Westborough, . . . .	33
Southbridge, . . . .	4	West Boylston, . . . .	31
Southwick, . . . .	12	West Bridgewater, . . . .	6
Spencer, . . . .	36	West Newbury, . . . .	7
Springfield, . . . .	13	West Springfield, . . . .	38
Sterling, . . . .	15	West Stockbridge, . . . .	7
Stockbridge, . . . .	15	Westfield, . . . .	183
Stoneham, . . . .	16	Westford, . . . .	7
Stoughton, . . . .	1	Westhampton, . . . .	7
Stow, . . . .	3	Westminster, . . . .	15
Sudbury, . . . .	8	Weymouth, . . . .	4
Sunderland, . . . .	2	Whately, . . . .	4
Sutton, . . . .	1	Whitman, . . . .	32
Swampscott, . . . .	21	Wilbraham, . . . .	11
Swansea, . . . .	11	Williamsburg, . . . .	8
Taunton, . . . .	3	Williamstown, . . . .	24
Templeton, . . . .	16	Wilmington, . . . .	3
Tewksbury, . . . .	2	Winchendon, . . . .	32
Topsfield, . . . .	3	Windsor, . . . .	3
Truro, . . . .	3	Worcester, . . . .	553
Tyringham, . . . .	8	Worthington, . . . .	17
Upton, . . . .	9	Wrentham, . . . .	18
Wakefield, . . . .	10	Yarmouth, . . . .	10
Walpole, . . . .	18	From towns not recorded, . . . .	49
Waltham, . . . .	3	Other States, . . . .	19
Ware, . . . .	13		
Wareham, . . . .	51	Total (258 towns), . . . .	4,648

*Topics presented at Institutes.* — The following is a list of topics presented in the day meetings, with the several persons employed in giving the instruction : —

*Algebra.* — J. W. MacDonald.

*American History.* — A. W. Edson.

*Application of Some Geometrical Principles to the Teaching of Arithmetic.* — Annette M. Bartlett.

*Advanced Arithmetic.* — J. W. MacDonald.

*Arithmetic.* — Augusta Barber, J. W. MacDonald, Frank F. Murdock, J. T. Prince.

*Attention and Interest.* — J. T. Prince.

- Beauty in School Work.*—Henry T. Bailey.  
*Biology Adapted to Common School Work.*—C. F. Hodge.  
*Bird Study.*—Frank Drew, Annie L. Warner.  
*Botany.*—William D. Jackson.  
*Child Study.*—Will S. Monroe.  
*Civil Government.*—J. W. MacDonald.  
*Composition.*—J. W. Dickinson.  
*Correlation.*—Henry T. Bailey.  
*Courses of Study.*—J. W. MacDonald.  
*Development of Good Character.*—G. T. Fletcher.  
*Development Through Uncorrected Work, with Illustrations from Chemistry.*—Delia M. Stickney.  
*Drawing.*—Henry T. Bailey, L. Walter Sargent, Mrs. B. J. Tice, Annette J. Warner.  
*Drawing and Nature Study.*—Henry T. Bailey, L. Walter Sargent.  
*Drawing in Primary Schools.*—Mary A. Pearson.  
*Educational Feelings.*—Thomas M. Balliet.  
*Educative Desk Work.*—Elizabeth Bennett, A. W. Edson, Mary I. Lovejoy.  
*Educative Seat Work for Little Folk.*—A. W. Edson.  
*Elementary Science (Class Exercise).*—Edith M. Todd.  
*Elements of Geography.*—George I. Aldrich.  
*English.*—Mary C. Moore, J. T. Prince.  
*English Grammar.*—G. T. Fletcher.  
*English Literature.*—Charles S. Chapin, J. W. MacDonald.  
*Ethical Training.*—Nellie Allen.  
*Examinations and Daily Markings.*—J. W. MacDonald.  
*Experiments Illustrating the Teaching of Physiology and Geography.*—Roland W. Guss.  
*French.*—Mary Stone Bruce.  
*Foundation Principles in Teaching.*—Frank A. Hill.  
*Fundamentals in Teaching.*—Emerson E. White.  
*Geography.*—George I. Aldrich, William A. Baldwin, Elmer L. Curtiss, G. T. Fletcher, E. W. Goodhue, Flora E. Kendall, Harriet A. Luddington, J. W. MacDonald, Will S. Monroe, Frank F. Murdock, Lillian Ordway, Louis P. Nash, Charles P. Sinnott.  
*Geometry.*—Amelia Davis, J. W. MacDonald, F. H. Nickerson.  
*Grammar.*—Emily C. Fisher, G. T. Fletcher, R. C. Metcalf.  
*Grammar and Spelling.*—G. T. Fletcher.  
*Gymnastics, Industrial Laboratory.*—Abbie J. Gannett.  
*Gymnastics, Gymnasium.*—Mary Moseley.  
*Higher Life in Schools.*—Frank F. Murdock.  
*History.*—George I. Aldrich, Caroline Close, W. H. Cushing, A.

W. Edson, I. Freeman Hall, M. Elizabeth Holbrook, J. W. MacDonald, Walter S. Parker, J. T. Prince, L. Walter Sargent.

*Home-made Apparatus.* — Charles B. Wilson.

*How a Teacher Can Keep Himself Alive.* — Walter P. Beckwith.

*How to Secure a High Degree of Self Activity.* — Frank M. McMurray.

*Ideal Educational Conditions.* — J. T. Prince.

*Individualism.* — Henry T. Bailey.

*Kindergarten Principles in the Primary School.* — Laura Fisher.

*Language.* — George I. Aldrich, A. W. Edson, Laura Fisher, G. T. Fletcher, I. Freeman Hall, Robert C. Metcalf.

*Language and Literature.* — Flora E. Kendall.

*Language and Reading.* — George I. Aldrich.

*Latin.* — J. W. MacDonald.

*Lectures in Pedagogy.* — Arnold Tompkins.

*Literature.* — Ellen Hyde, Flora E. Kendall, James W. MacDonald, Frank M. McMurray.

*Materials and Methods.* — G. T. Fletcher.

*Mathematics.* — J. W. MacDonald.

*Modern Demands Upon the Teacher.* — Frank A. Hill.

*Modern Tendencies in High School Teaching.* — J. W. MacDonald.

*Morals.* — Ellen Hyde.

*Music.* — Elizabeth Stearns.

*Nature Study.* — A. C. Boyden, S. E. Brassill, C. H. Morss, L. Walter Sargent, Mrs. B. J. Tice, Charles B. Wilson.

*Nature Study, What, How.* — S. E. Brassill.

*Number Work.* — Leila M. Lamprey.

*Orthography.* — G. T. Fletcher.

*Penmanship.* — J. C. Moore, Anna Stockbridge, B. J. Tice.

*Physics.* — J. B. Gifford, William D. Jackson, J. C. Packard.

*Physiology.* — C. F. Hodge, Frank F. Murdock, B. J. Tice.

*Pictorial Art.* — Henry T. Bailey.

*Primary Class.* — Amy L. Boyden.

*Primary Reading.* — G. T. Fletcher.

*Principles of Teaching.* — John W. Dickinson, I. Freeman Hall.

*Professional Training.* — G. T. Fletcher.

*Proper Order of the Sciences.* — J. C. Packard.

*Reading.* — George I. Aldrich, Eunice M. Beebe, Ada E. Chevalier, A. W. Edson, G. T. Fletcher, I. Freeman Hall.

*Reading and Arithmetic.* — George I. Aldrich.

*Reading and Language.* — George A. Walton.

*Reading in Grammar Schools.* — Catherine W. Parker.

*Recent Progress in Geographic Teaching.* — Alex. E. Frye.

*Rural School Conditions.* — G. T. Fletcher.

*School Discipline.* — Charles S. Chapin.

*School Economics.* — G. T. Fletcher.

*School Management.* — G. T. Fletcher.

*Sense Training.* — Frank F. Murdock.

*Spelling.* — G. T. Fletcher, I. Freeman Hall, George A. Walton.

*Superintendent and Teacher.* — George I. Aldrich.

*The American Voice.* — Mary Adams Currier.

*The Causal Notion in School Instruction.* — Frank M. McMurray.

*The Essential of Sound Instruction.* — John Bascom.

*The Expansion of Grammar Courses.* — George I. Aldrich.

*The Kindergarten Bridge.* — Lucy Wheelock.

*The Kindergarten Element in Primary Schools.* — Susan S. Harri-  
man.

*The Number of Subjects that a Pupil Should Take at One Time,  
and Number of Recitations in Each.* — F. M. Colleser.

*The Study of Living Nature.* — C. F. Hodge.

*The Moral Value of the School Organization.* — Walter P. Beckwith.

*The Teacher and the New Psychology.* — John G. Thompson.

*The Teacher's Authority.* — George A. Walton.

*The Teacher in the Community.* — Charles S. Chapin, G. T.  
Fletcher.

*The Teaching of English.* — J. C. Greenough.

*The Teaching of Ancient Language.* — E. R. Goodwin.

*The Teaching of Modern Languages.* — Homer P. Lewis.

*The Unseen Force in Character Building.* — George H. Martin.

*Training as an Educational Factor.* — A. E. Winship.

*Training the Taste.* — Henry T. Bailey.

*Two and Three Years' Courses.* — Gardner P. Balch.

*Working from Standards Within.* — Frank A. Hill.

*Written Language Work.* — Charles S. Chapin.

*Evening Addresses.* — Evening addresses were given by A.  
E. Winship on "Training as an Educational Factor;" Frank A.  
Hill on "Modern Demands upon the Teacher;" A. H. Camp-  
bell on "Are Children overworked in School?" William P.  
Kelly, Henry T. Bailey, J. T. Prince and J. W. MacDonald on  
"What Constitutes a Good School;" George A. Walton and  
agents of the Board on "Some Phases of Modern Education;"  
Henry T. Bailey and J. W. MacDonald on "Important Phases  
of Education;" A. W. Edson, Frank F. Murdock, L. Walter  
Sargent and G. T. Fletcher on "Some Phases of Educational  
Progress."

*Topics presented by Mr. George A. Walton in Conference at the Laurel Park Institute.* — 1. Legal Duties of School Committees and Superintendents. 2. Duties relating to School Attendance and Truancy. 3. School Census and Records. 4. Courses of Study, — Enlargement and Enrichment. 5. Grading and Promotions, Ungraded Schools. 6. Relations of School Teacher and Pupil. 7. Purpose of the School to the Pupil, Intellectually and Morally. 8. Relation of the Superintendent to the Committee, Teachers, Pupils and Community.

*Round Table Conferences.* — At the Worcester Institute the high school section was conducted as a series of round table conferences. At the Quincy Institute round table conferences were conducted by J. T. Prince on English and Literature. Conferences were also held in connection with the institutes at Salem and Greenfield.

*State Institutes for Drawing Supervisors and Teachers.* — During the year three drawing or art institutes — the first in the history of the State — have been held.

*XLIII. Table giving Data about the Drawing Institutes.*

WHERE HELD.	Date.	Supervisors of Drawing.	Visitors.	Number of Exercises.	By Whom conducted.
Springfield, .	Oct. 19,	50	200	7	Henry T. Bailey.
Worcester, .	Nov. 19,	60	37	6	Henry T. Bailey.
Salem, . . .	Dec. 10,	47	270	6	Henry T. Bailey.
Totals (3),	—	157	507	19	

*Topics presented at the Drawing Institutes.* — The following is a list of the topics and speakers at these institutes : —

*A More Beautiful Public Life.* — Edwin D. Mead.

*Artistic Methods.* — James Hall.

*Drawing in Elementary Schools.* — Mary A. Pearson.

*Drawing in High Schools.* — N. L. Berry.

*Lessons from Nature Applied to Art.* — George H. Bartlett.

*Recent Results in Springfield.* — James Hall.

*The Correlation of Drawing with Other Studies.* — Charles F. Whitney.

*The High School Problem.* — A discussion conducted by Henry T. Bailey.

*The New Object Drawing.* — Charles M. Campbell. Discussion led by William L. Judkins and Elizabeth E. Morse.

*The Origin and Development of the Arts and their Significance in Relation to Art in the Schools.* — Irene Weir.

*The Position of Art Instruction in General Education.* — J. Frederick Hopkins.

*The Psychology of Art Education.* — Thomas M. Balliet.

*The Supervisor's Relation to the Pupils.* — Elizabeth H. Demorest.

*The Supervisor's Relation to His Teachers.* — Frederick L. Burnham.

*The Value of an Art Environment.* — J. Madison Stone.

*Vital Art Education.* — John Ward Stimson.

*Vital Nature Study.* — L. Walter Sargent.

*To-morrow will be Another Day.* — Augusta L. Balch.

These special drawing meetings were generously attended, some of the papers presented were richly illustrated by pupils' work, the interest excited was great, and the schools cannot but profit in time from the added stimulus thus given to a very important branch of instruction.

*Comparison with Previous Years.* — The following statement will give a glimpse of certain institute data for the last four years: —

YEAR.	Institutes Held.	Towns.	Teachers.	Exercises.
1894, . . . . .	25	310	4,640	317
1895, . . . . .	17	239	3,226	266
1896, . . . . .	29	370	4,137	393
1897, . . . . .	23	366	4,805	475

While, in general, each institute is intended to cover territory not covered by the others, there is a little overlapping, so that the same town and the same teachers are occasionally counted at two institutes. Consequently the numbers given in

the table are slightly in excess of the different towns represented and the different teachers in attendance.

*Division of Institute Work.* — The institute work for 1897 was divided among the agents as follows : —

	Institutes.	Towns.	Teachers.	Exercises.
Mr. Prince, . . . .	6	63	1,353	73
Mr. Edson, . . . .	1	20	766	24
Mr. MacDonald, . . . .	4	110	1,101	234
Mr. Fletcher, . . . .	9	173	1,428	125
Mr. Bailey, . . . .	3	—	157	19

Mr. Edson made complete arrangements for four institutes, which, however, he did not personally conduct, on account of his resignation, October 1. They were divided among the other agents.

*Long Summer Institutes.* — There is an undoubted demand for summer institutes, lasting one or two weeks. The great usefulness of the Laurel Park Institute has been fully proved. The teachers that attend it earnestly desire that its session may be lengthened to two weeks. A petition to that effect, signed by 202 teachers, was received some time ago by the Board of Education. The institute appropriation was not large enough to justify favorable action. If it had been large enough, a legislative restriction that no larger sum than \$350 shall be expended upon a single institute would still have barred such action. An institute of two weeks must have many workers in addition to the agents of the Board, and this means more money than the Board has at its disposal. Indeed, a large institute for one week is difficult to conduct under present restrictions.

A summer State institute for the eastern part of the State was held for the first time last July at the Salem Normal School. The attendance was large, the enthusiasm great, and the service



rendered highly prized. The teachers themselves bore not far from half the expense of this institute.

*Two Changes recommended.* — The institute appropriation was at one time \$3,000. As the force of agents was increased, the sum was reduced to \$2,000. With a reduction in the force of agents and with the growing demand for summer institutes of one or two weeks' duration, the old appropriation should be restored.

The legislative restriction to \$350 for a single institute should be removed. The restriction answered well enough for conditions that existed long ago, but it has already become a serious hindrance in the case of institutes like the July ones at Laurel Park and Salem.

#### THE WORK OF THE AGENTS.

*Resignation of Mr. Edson.* — On the 1st of October, 1897, Mr. Edson resigned his position as an agent of the Board, to accept a position as assistant superintendent of schools for New York City. Mr. Edson's special acquaintance with the needs of rural schools, and his eminent fitness to deal with those needs, coupled with his great capacity for work and his unfailing enthusiasm, made his services invaluable. It would have given him pleasure to continue in the employ of the State, but he could not in justice to himself and family decline a salary nearly double that which he had been receiving. Mr. Edson was appointed an agent of the Board Oct. 6, 1887, and entered upon his duties in November of the same year.

*Reassignment of Territory.* — The resignation of Mr. Edson has led to a reassignment of territory among the agents, as follows: —

AGENTS.	Counties.	UNDER SUPERINTENDENTS.		NOT UNDER SUPERINTENDENTS.	
		Towns.	Schools.	Towns.	Schools.
John T. Prince, .	Barnstable, Bristol, Dukes, Nantucket, Norfolk, Plym- outh.	97	2,014	25	253
G. T. Fletcher, .	Berkshire, Franklin, Hamp- den, Hampshire.	104	1,580	38	274
J. W. MacDonald,	Essex, Middlesex, Suffolk, Worcester.	152	5,963	27	292
Henry T. Bailey, .	The State, . . . . .	353	9,557	90	819

The reduced force of agents, numbering only four, instead of six a year ago, makes it practically impossible for them to respond to the innumerable calls upon their attention. The reassignment of territory has been made with particular reference to towns not under special supervision, but the pressure for the services of the agents is greatest from the towns that are under such supervision. The kindling of a deeper interest in the schools increases everywhere the demand upon all agencies that can indicate ways of utilizing it.

Any policy that makes it increasingly difficult for the State to keep in close, sympathetic and helpful touch with the local school authorities may be justly challenged. Especially would it be unwise for the State to increase its aid to the rural schools and to reduce at the same time the only agencies it has for insuring a wise use of such aid.

*Records of Work done by the Agents.* — The agents keep detailed records of the work done by them. From such records it may be ascertained where they were and what they were doing on each day of the year. The following summary of certain facts in their work throws no light, of course, on the quality or value of such work, but gives hints of its quantity: —

AGENTS.	Addresses.	Towns Visited.	Schools Visited.	Business Letters.	Miles Travelled.
Mr. Prince, . . . .	89	69	260	980	10,100
Mr. Fletcher, . . . .	90	86	519	800	8,315
Mr. MacDonald, . . . .	104	85	270	880	10,869
Mr. Bailey, . . . .	168	81	205	1,728	10,500

### THE NORMAL SCHOOLS.

*Dates of Opening.* — The four normal schools authorized by the Legislature in 1894 have all been opened. The following list gives all the normal schools of the State in the order of their opening: —

NORMAL SCHOOLS.	First Opened.	First Principal.
Framingham, . . .	July 3, 1839, at Lexington,	Cyrus Peirce.
Westfield, . . .	Sept. 4, 1839, at Barre, .	Samuel P. Newman.
Bridgewater, . . .	Sept. 9, 1840, . . .	Nicholas Tillinghast.
Salem, . . .	Sept. 14, 1854, . . .	Richard Edwards.
Normal Art, Boston, .	Nov. 11, 1873, . . .	Walter Smith.
Worcester, . . .	Sept. 15, 1874, . . .	E. Harlow Russell.
Fitchburg, . . .	Sept. 11, 1895, . . .	John G. Thompson.
North Adams, . . .	Feb. 1, 1897, . . .	Frank F. Murdock.
Barnstable (Hyannis),	Sept. 9, 1897, . . .	W. A. Baldwin.
Lowell, . . .	Oct. 4, 1897, . . .	Frank F. Coburn.

Full accounts of the six earlier schools may be found in the fortieth and fifty-third annual reports of the Board.

*XLIV. Table giving Attendance and Other Data for the Past Ten Years.*

	Number of Different Students.	Number admitted to Entering Classes.	Number of Graduates.
1888-89, . . . .	1,352	471	251
1889-90, . . . .	1,290	423	288
1890-91, . . . .	1,204	394	258
1891-92, . . . .	1,187	425	275
1892-93, . . . .	1,198	400	262
1893-94, . . . .	1,225	395	266
1894-95, . . . .	1,267	427	289
1895-96, . . . .	1,123	394	307
1896-97, . . . .	1,112	456*	334

\* Normal Art admissions included.

*Decline in Attendance for the Period.* — The foregoing figures are for all the schools, including the Normal Art, except that in the column giving the numbers in the entering classes for the successive years the numbers for the Normal Art School are not included, because of lack of data, until 1896-97. The table shows a falling off in the entire number of pupils for the first four years of the ten, a partial recovery for the next three and then a second falling off. The largest attendance for the period, 1,352, is also the largest in the history of the schools.

*Effect of Local Training Schools.* — The growth of local training schools has had something to do with this decline in numbers. From data gathered last year (see pp. 304-333, sixtieth report of the State Board of Education), it appears that 19 cities have such schools. These schools returned 547 pupil-teachers and 250 graduates. At the same time these cities had but 103 pupils in the State normal schools, of whom only 19 entered during the year covered by the report. For a full discussion of the relations that should exist between the local training schools and the State schools, see last year's report.

*Increase in the Number of Graduates.* — It is gratifying to note that during this decline in numbers the number of graduates has, on the whole, increased, the largest number for the period coinciding with the smallest attendance. This means increased appreciation of the worth of full preparation on the part of the pupils. The loss to the State schools has been largely confined to those who desire to get at the work of teaching in less time than two years and at reduced cost.

*The Tide turning.* — In 1896 candidates for admission to the normal schools were for the first time required either to be graduates of high schools or to have received the equivalent of a high school training. In either case they were required to take examinations in high school subjects. If the Normal Art School is excluded, the number admitted to the entering classes in 1896 under the new rule was 389, — only 5 less than the year before, when the majority of candidates, though coming from high schools, chose to be examined, as they then had a right to choose, in grammar school subjects only. In 1897 the number examined was 747; the number admitted to entering classes, 631, — a gain of 62 per cent. If the Normal Art School is in-

cluded, then the number admitted in 1896 stands at 456; the number examined in 1897, at 843; and the number admitted to entering classes, at 720,—the percentage of gain being 58. In addition, there were 60 admissions to higher or special classes.

*The Gain divided between the Old Schools and the New.*—A part of this somewhat astonishing increase is due to the opening of the new schools, in each of whose cases the attendance is larger than was anticipated; but, what is a surprising feature of the situation, the old schools, instead of being depleted by the opening of the new, have, without exception, admitted larger classes than last year, the junior class at Bridgewater having increased from 115 to 125; at Framingham, from 37 to 52; at Salem, from 42 to 75; at Westfield, from 37 to 69; at Worcester, from 59 to 72; and at the Normal Art, from 67 to 89.

XLV. Table showing Admissions and Attendance for 1897, with other Normal School Data.

NORMAL SCHOOLS.	TEACHERS IN NORMAL SCHOOLS.		TEACHERS IN MODEL AND PRACTICE SCHOOLS.		Examined for Ad- mission in 1897.	ADMITTED TO —		ATTENDANCE DEC. 1, 1897.			Number of Grad- uates in 1897.	Different Students from the Begin- ning.	Graduates from the Beginning
	Men.	Women.	Men.	Women.		Entering Class.	Higher or Special Classes.	Men.	Women.	Total.			
Barnstable (Hyannis), . . . . .	2	2	—	—	40	40	—	8	31	39	—	40	—
Bridgewater, . . . . .	7	7	—	12	157	125	19	48	222	270	98	4,188	2,774
Fitchburg, . . . . .	4	6	3	14	47	40	13	1	105	106	26	152	26
Framingham, . . . . .	—	13	—	6	65	52	10	—	109	109	38	3,273	2,050
Lowell, . . . . .	2	2	—	—	127	114	—	3	105	108	—	109	—
North Adams, . . . . .	3	5	—	1	50	44	1	5	71	76	—	78	—
Salem, . . . . .	4	8	—	5	90	75	11	—	139	139	56	4,216	2,304
Westfield, . . . . .	3	5	—	6	84	69	5	1	102	103	41	4,093	1,489
Worcester, . . . . .	4	8	—	3	92	72	1	11	175	186	55	1,434	754
Normal Art (Boston), . . . . .	7	5	—	—	91	89	—	48	204	252	20	2,549	901
Totals, . . . . .	36	61	3	47	843	720	60	125	1,263	1,388	334	20,425	10,298

Of the 843 persons examined for admission in June and September, 1897, 63 either failed in their examinations, or, passing them, declined to attend. The number of students in attendance Dec. 1, 1897, was 1,388, or, if a special class of 31 at the Lowell Normal School is added, 1,419, — the largest in the history of the schools. The largest previous attendance was reported for 1888–89, — 1,352 different pupils for the year; but the largest number in attendance at any one time was considerably less. The number of graduates in June, 1897, was 334, made up chiefly of pupils that entered two years before in a class numbering 394, the rest being graduates from courses of three or four years. Of this entering class of two years ago, numbering 394, a few have taken the longer courses, and therefore will not graduate until 1898 or 1899. The proportion of graduates to those that enter is steadily rising. It cannot be far from 75 per cent., — rather more than less. The proportion of graduates to those who have entered, if the entire history of the schools is taken, is 54 per cent., — 19,307 persons (not including the 1,388 pupils now in attendance who have not had a chance to graduate) having been in attendance, of whom 10,298 have received diplomas. In the earlier days the percentage of graduates fell as far below 54 as it now rises above that average. Of the 4,661 teachers now in the teaching ranks who have received normal school training, 4,103 hold diplomas, — a fact that shows how much more the public service is indebted to graduates of the normal schools than to normal non-graduates.

*Model and Practice Schools.* — In the model and practice schools there are at present 50 teachers, — 3 men and 47 women. Their salaries are paid either wholly by the State, or, in most cases, jointly by the State and those towns whose children make up the schools, in accordance with agreements made at different times and under varying conditions. The later agreements are more favorable to the State than the earlier, since, under the later, the towns benefited pay such teachers full regular salaries, while the State pays something additional to secure a higher order of capacity. When the plans of the new normal schools are perfected, this class of teachers will be considerably larger; but, however large it may become, it will not measure fully the observation and practice facilities available in

the different schools. The students of the Worcester and the Normal Art schools, for example, enjoy special privileges for practice in the public schools of Worcester and Boston.

The Salem school has just organized in its new building, with the coöperation of the Salem authorities, a kindergarten and three schools of the first, second and third grades respectively, to serve as model schools. The problem of providing adequate practice for the Salem school is still under consideration.

At North Adams there is now available for observation and practice a large city school, near the normal school building, containing all grades, from the kindergarten to the highest grammar, with 14 teachers and more than 500 pupils, with room for expansion in a building not yet fully occupied.

The Fitchburg school has several model schools in its own building with nearly 300 pupils, and extensive practice schools outside with more than 500 pupils.

The Barnstable and Lowell schools have not yet organized their training departments.

At Bridgewater, Framingham and Westfield there are model and training schools, with all the elementary grades, from the kindergarten up. The Framingham school gives 8 or more pupil-teachers opportunities to teach at the same time, the Westfield 15 and the Bridgewater 30.

It may readily be inferred that the normal schools differ widely in the opportunities which they offer for observation and practice. In one school the students simply look on and see how competent teachers handle their children; in another they become teachers themselves, under conditions as nearly like those of the public schools as possible. Between these two extremes there are several intermediate plans. The trend, however, is towards larger facilities for actual practice. This is the great lesson to be learned from the local training schools. Not until the pupil-teacher has shown ability in the real conduct of a school can it be said with assurance that she is qualified to teach. The practice of the novice, however, should go no further than is required to establish this assurance. The rest of her too brief stay in the normal school should be sedulously given to that sort of preparatory work which can be better done out of the practice school than in it.



*The Five Groups of Subjects on which Admission Examinations are based.*—Admission examinations are based on the following groups of subjects:—

- I. Languages,—English, and one only of Latin, French and German.
- II. Mathematics,—arithmetic, algebra and geometry.
- III. History and geography,—United States history and related geography.
- IV. Sciences,—physical geography, physiology, physics, chemistry and botany.
- V. Drawing and music.

For the questions for June and September, 1897, see the Appendix. For a discussion of the principles observed in framing them, see pp. 120, 121 of last year's report.

The subjects are all statutory ones; they are all found in curricula recommended by experts; they are all found in actual working programs of our better schools; and a sound elementary acquaintance with each group is indispensable to the teacher that would meet the demands now making on the elementary schools. The conception of unity in education demands that these subjects shall be taught in their simpler aspects in the lower schools as they are taught in their profounder aspects in the higher. Who can teach these simpler aspects more wisely and safely than those who see how they are related to the profounder ones?

Take the first group, for instance: It ought not to be urged that the teacher should himself use good English, if he would teach it to others. And, if he would lead his school into the delightful realm of the English masterpieces, he should at least know the way. The value of an additional language, especially of Latin, in illumining one's English, is generally conceded. Or the second group: A foundation acquaintance with geometry and algebra is now required in many elementary schools; but, whether such acquaintance is required or not, it is unpardonable that the teacher should not be aware of the possibilities in these subjects for exciting interest and opening the mind. Or the third group: Shall one teach United States history without previous study of the theme? Ought not such previous study

to include the correlation of this history with geography, with biography, with civil government and with old-world movements, where such correlation obviously and naturally gives life and color to the history? Or the fourth group: How can the teacher do other than blindly grope through that nature work in which she should excel if she has not attained something in physical geography, physics, chemistry, botany and physiology, — sciences that have grown out of nature work? Or the last group: Grant that the teacher may not herself be a singer; she should be able, at least, to guide her pupils in singing. And, as for drawing, the teacher who cannot sketch freely at the blackboard misses one of the finest means of arousing, capturing and helping her pupils, while, if she cannot teach the subject, she falls seriously short of meeting one of the most pressing of modern demands upon the teacher. It is not the business of the normal schools to teach these subjects, — it is their business rather to teach their pupils how to teach them. To the extent to which candidates for admission are deficient in these branches, to that extent are both they and the normal schools handicapped in their professional work.

*What the State has a Right to expect from its Normal Schools.* — There is an ideal expectation of results based on the assumption that the normal schools are as nearly perfect in material equipment and teaching skill as human wisdom and power can make them; that they have the insight and the means to determine who of their students will make good teachers and who will not; and, finally, that they have the power, and the nerve to use it, to separate the one class from the other, to the end that only those students of assured ability and promise shall receive the State's diploma and go forth with the State's sanction. Among the qualifications of graduates involved in such an ideal expectation are a sound and broad scholarship; a strong and winning personality; a good working acquaintance with child nature; a thorough grounding in the principles of governing and teaching; some useful knowledge of the teachings of history about the various educational movements of the world; and, highest of all, proved ability to bring all these things into timely and effective use in the actual teaching of children. It is needless to elaborate further this ideal expecta-

tion. It is enough to say that its full realization belongs to a stage of educational prowess not yet attained. Now, the right of the State to expect uniformly high results from its normal schools has certain serious qualifications.

*Candidates for Admission are Self-selected.* — There is no commission with authority to visit the schools of the Commonwealth and to say to promising youth, "The State drafts you to become teachers." Candidates for admission to the normal schools are consequently of all grades of promise. This is because of our democratic theory that everybody who chooses may aspire, as well as because of our democratic reluctance to interfere with ambitions unless they are grossly misdirected. The extent of possible interference with ill-advised teaching aspirations is determined, in the end, by public sentiment. That this is more exacting than it once was, the raising of the standard of admission to the normal schools is ample proof. So long, however, as the normal schools are dependent on public sentiment for material and moral support, they cannot afford to ignore it. They are keenly aware that the penalty of taking too rash a position in advance of the main line, in campaigns civil and educational as in campaigns military, is inability to hold it. Considerate treatment of its self-selected students is the only wise course. The admission examinations rule out the more conspicuously unfitted. How many of this class are deterred by the examinations from applying at all, no one knows. If the lack of fitness does not show itself until after admission, extreme cases may be advised to withdraw, or may even be summarily dropped. There must always be a considerable number of students, however, who may be unjustly treated if they are dropped from the schools, and yet who may fail as teachers if they are allowed to graduate. The right of the State to expect evenly good results is certainly qualified by the indulgence the schools should show towards this uncertain company. It is dangerous to be very dogmatic about a normal school pupil's threatened unfitness to teach. Some of our most eminent teachers have come out of the furnace fires of untoward experience in youth. The lessons of early failure sometimes yield finer fruit than those of early success. Perhaps it is a nobler service, after all, for the normal school to detect and cultivate that germ of power from which mastery,

though long delayed, shall ultimately come, than to banish it impatiently from its fostering care.

*The Meagre Rewards of Teaching.* — In many towns the rewards of teaching are shamefully scant. Nowhere are they particularly dazzling except in favored and isolated spots. If there are towns of the State where teachers are paid no more than domestics in the kitchens, and other towns where, though more is paid, teachers cannot dress and live and enjoy the means of culture as they ought, and if, in consequence, promising young women who might otherwise make good teachers for these towns do not dare to run in debt to prepare themselves properly to teach, and so seek other avenues for their ambition than the schools, the State has no right to expect the normal schools to send out able teachers to such towns. Employers of teachers at \$5, \$6 or \$7 per week, to cover board and everything, probably secure all the teaching skill the market can afford for the pay. Indeed, they more frequently get more than their money's worth rather than less.

*No Teaching at its Best without the Annealing of Experience.* — The State must expect from the graduates of the normal schools at the outset the usual concomitants of immaturity. Let normal schools do their best, there is no way to guard against a certain initial formalism or over reverence for the letter, even on the part of their abler graduates, to say nothing of the rest. Let principles be taught never so well, their full significance takes time for recognition. Nay, a successful life experience does not exhaust their meaning. Now, the normal school student knows this well enough in a theoretical way; it is not, however, until he knows it from prolonged and varied experience, until he gets well into the realm of that spirit that underlies the letter, that the somewhat vague but undoubtedly real thing known as formalism begins to disappear.

*More Preparatory Practice needed.* — The State's right to expect the best possible results from the normal schools is qualified to the extent to which the State fails to provide adequate teaching practice for normal school pupils. In the new normal schools provisions for such practice are likely to be more generous than in the old. How is it known that such extended practice is demanded? To this question the local training schools of 19 cities, with their 500 pupil-teachers and

their 250 graduates, — schools in which the practice idea dominates everything, — give an emphatic answer. These 19 cities comprise half the people of the State. Most city superintendents would gladly have candidates for admission to their local training schools attend the State normal schools first. Cambridge and Somerville already insist on this. The city training school as a final means for insuring the selection of competent teachers for the local schools has a certain value. It stands between a good deal of raw and doubtful material that would press into the teaching service and the service itself. It differentiates its apprentices; it sifts out the unpromising; it responds to the many calls for substitutes; it keeps good teaching material on hand and at work at a moderate cost until permanently wanted to fill vacancies in the ranks.

*What the Normal School may properly expect from the State.* — The State is committed to the policy of normal training for its teachers. It has put certain duties on the normal schools. It has large expectations of returns from them. As a result, the normal schools have a right to claim certain things from the State. It is their duty to keep these claims in the foreground. If they fail to do so, they are false to the duties they are enjoined to discharge. These claims may be treated under the general heads of material equipment, good teachers, and due recognition of teaching as a profession.

*Material Equipment of the Normal Schools.* — On the material side our normal schools were never better off than to-day. The buildings are nearly all new, commodious, and finely adapted to their purposes. The rest are in good condition. The grounds are well-placed, spacious, and in several cases marvellously beautiful. At one or two schools, notably at North Adams, more needs to be done to bring them to a finish and to their full effect and service. As to books, collections, apparatus and school appliances, the supply, in general, is well-chosen and reasonably generous. Such things should be fresh; they should reflect the best thought. It is the duty of the normal schools to seek out the best and to possess it, — to do this not in the spirit of a follower waiting for the judgment of others, but in the spirit of a leader aiming to direct others. Such equipment should grow, by moderate annual increments, as need for it is felt. In brief, the normal school plant, taken

as a whole, is creditable to the State. It is sound policy to give sufficient annual care to this plant to hold it steadily up to those ideals of finish, completeness and service, which so much of it seems now to have attained.

*Good Teachers for the Normal Schools.* — Many of our normal school teachers are excellent, — worth far more than any money that is paid them. Others are as good as the State has a right to expect for the modest salaries paid, though not so good as the welfare of the coming teachers demands. The teachers of the teachers of the State ought to be the best to be had. The State ought to be able to go into the best schools and to command the highest teaching skill to be found there for State service. It does not do this. It cannot do this. It does not pay enough to do this. The cities frequently outbid the State, and so secure teachers the State would gladly employ. If, therefore, the State is compelled now and then to employ teachers of less reputation, scholarship and skill, it should reduce its expectation of superior teaching accordingly. Were it not that inferior pay sometimes secures superior service, the State would not fare so well as it now does.

*Due Recognition of Teaching as a Profession.* — The great thing the normal schools have a right to expect from the State is a more complete recognition of teaching as a profession. The State should now insist that every candidate for a teaching position shall have a certain minimum of professional training acquired somewhere, somehow, in a normal school or out of it. It is said that we have too many normal schools. We have, or we have not, according to circumstances. If the State is to continue content that teachers with little academic and no special training shall work often for a pittance, where communities are content to employ them, we might spare one or two of our ten schools. If the State is not content with such a policy, but inclines to be as stringent with its teachers as it now is with its lawyers and doctors and pharmacists and plumbers and electricians, to say nothing of candidates for the varied occupations to which access lies only through civil service examinations, then it needs every normal school it has. Then every such school might be taxed to its utmost, and yet the demand for trained teachers would scarcely be met. We have not far from 1,500 vacancies a year in our public schools.

The largest graduating class of our normal schools thus far hardly exceeds a fifth of that number. The State has put more than \$2,000,000 into buildings for these schools; its annual expenditure for them now exceeds \$200,000. It has stood by these schools for sixty years. It has stood loyally, persistently, even stubbornly, through fair weather and foul, for the principle of professional training. It has done everything for such training but to require it. Not only the normal schools, but large numbers of thoughtful people all over the State, are hoping that the State will take the final step, and require that every new teacher, after some definitely fixed time in the future, shall hold a certificate of training and proficiency satisfactory to a properly constituted board of examiners.

*Mistakes or Dangers to which Normal Schools are exposed.*

—It is needless to say that, with the great expansion of the normal school system, its higher standards of admission, its greater patronage, the growing demands of the towns and cities for superior teachers, and the improved tone of the public attitude towards the value of professional training, have come richer opportunities than ever before to mould public education. But with such opportunities come weightier responsibilities as well. From the mistakes or dangers to which normal schools are peculiarly exposed the following may be selected as typical: adherence to academic work and methods; failure to vitalize the psychology that is taught; and, in general, failure to work at the critical points in the novice's need.

*Adherence to Academic Methods and Work.*—Too much stress cannot be placed on the distinction that exists between teaching a subject and teaching how to teach it. Normal schools exist for the latter purpose, not the former. If, in working for the latter, the former is incidentally served, very good. The excuse of the normal schools for doing academic work is that teachers must know their subjects before they can be taught to teach them. It is true that persons are not unfrequently admitted to the normal schools who are deficient in important branches. Sometimes they are bright pupils from classical courses, who feel compelled to offer Cicero or Homer for omitted sciences, or forego altogether the training they seek. How can one teach the sprouting of the bean or the

branching of the horse-chestnut without some mastery of the facts and laws that underlie such things? Shall not the normal school — nay, must not the normal school — make good these deficiencies before it can enter upon its proper professional work? Under old conditions, now happily improving, the normal school could not well refuse to eke out, as best it could, the scant qualifications of its pupils. Probably it can never absolutely decline to do this sort of work. The time is now ripe, however, for throwing the main burden of preparation upon the high schools and academies, — in short, upon the candidates for admission themselves. Whether such preparation is satisfactory or not, it should be assumed to be satisfactory. The work of the normal school should be based on that assumption. The assumption may prove a wild one in scattered cases. So much the worse for these cases. It may be possible to help such cases in an academic way, at odd moments, but such kindly service should not swerve the school from its great work. The adequacy of the academic foundation having been assumed from the start, the work of the normal school should be professional from the start. Whatever the hardship of this policy to the few, it is but simple justice to the many. Moreover, it is a policy that in the long run will insure better work in the schools below, the fruits of which, in some measure, will come to the normal schools. It should not be forgotten that the teacher in the elementary school is not called upon to teach botany, for instance, as a formal science, after some high school fashion, but to teach plants in a simple way, under the general head of nature study. Shall the pupil in the normal school, therefore, study botany as a science? This she is supposed to have done already in the high school. Admitted that it can be studied, as it sometimes is studied, in the normal school under better instruction, with compound microscopes and rich appliances, with a wonderful stimulus to scholarship. What the elementary school needs, what the neophyte wants, what the normal school should give, so far as possible, is skill in teaching plants to little children. What these plants shall be, what things about them shall be studied, what postponed, what ignored altogether, what the simpler relations held by them to other things, what the aims are that shall control the study, how far the child shall himself lead in the study and how far



the teacher may go in guiding him, what good points to make in the teaching, what pitfalls to avoid, and how it all fits into a sensible philosophy of teaching, — these are the things to be thought of. It is inevitable, of course, that in doing such work the pupil shall incidentally revise and supplement such botanical work as she may have done, and that the rich botanical outfit of the normal school shall greatly help her therein; but she does it all from a new point of view, — that of the learning teacher. If it is possible early in the course to make the study of principles bear upon the real needs of the normal pupils, — needs revealed to them either through some experience of their own in trying to teach something or through observation of the experience of others, — such study will yield better results. Those who enter the normal school after having taught some time have a decided advantage over their classmates, because of these consciously felt needs. It is a problem, of course, how to develop early in the course the need that should be felt to inspire one's study, while postponing any serious practice by the pupil until it is reasonably certain that children will profit by it.

I understand that the normal schools have a clear view of what their real work should be. The ideal to be approached is a high and difficult one. There is no college in the land that sets for itself so serious a business as that of the genuine normal school. It is vastly more perplexing to teach the teaching of a subject than to teach the subject itself. The teaching of the subject itself — why, that is the refuge to which the normal school teacher betakes himself when overburdened by the heavier task imposed by his exacting ideal.

If I see work, as I do from time to time, that has nothing to distinguish it from that of a high school, I prefer to think of it either as a survival of old academic methods with which the normal school is gradually dispensing, or as a kind of restful relapse from the higher work the teacher would do but is not always able to do. Still, it cannot but be true that if any insist that such work is professional, then, by the same token, the high school is a normal school, and the *raison d'être* of the normal school is to that extent weakened.

*Vitalizing the Psychology taught.* — Differences of opinion are often expressed as to the value of the study of psychology

to teachers. There cannot well be discordant views as to the value of such a knowledge of the human mind as leads the teacher intelligently and practically to respect the laws of its development. The born teacher, it is claimed, intuitively respects these laws. If such intuitive knowledge is postulated as a sign of the so-called born teacher, the claim must be admitted. The conclusion comes instantly, however, in view of educational history and present facts, that born teachers in this high sense are as rare as pearls in the sea. The world's history is strewn with educational sins; the best teachers that have ever taught have not been free from them; the pathway of teachers to eminence in our own time has been a pathway of laws violated as well as of laws observed; the best school ideals of to-day are as mountain summits never scaled by the masses that teach at their base. The waste of mental energy in school, through misdirection or non-use, is enormous, though not more conspicuous than the waste in other kinds of energy. Just as we are learning to utilize more and more that energy of steam or of electricity that has hitherto run to waste, so we are learning better and better to reduce this waste in the educational forces of the school. One may say all this while lauding the school for its priceless service; it is a fact to be taken to heart, however, if one would improve that service. Doubters unquestionably base their doubts of the value of the study of psychology on what they conceive to be the failure of the student to connect such study with his practice. To learn, for instance, that the first knowledge the student acquires of an absolutely new subject must be acquired objectively, and then to ignore this educational axiom when called upon to teach a new subject,—such learning, thus isolated from practice, may well be questioned. But which is the wiser course in the presence of such a break, — to abandon the psychology, or to reform the practice? It is the same old discord that has vexed the world from the beginning, — the break between theory and practice, between principles and their application, between words and deeds. The normal schools know this discord better than their critics. They know, further, that it is far easier to recognize it than to correct it. Their ambition, their struggle, is that the axioms of psychology shall not be held in a merely isolated, verbal, cyclopædic way, but that they shall become

illuminating, guiding, controlling principles in actual teaching. The psychology they prize is a kind of enlightened common-sense in action, — the common-sense covering such knowledge of the mind as their pupils intuitively have or may have empirically gathered, the formal study of psychology giving the further enlightenment needed, — and the teaching practice, in consequence thereof, becoming sensible, inspiring and effective.

*Meeting the Critical Needs of the Coming Teacher.* — In brief, the true point of view of the normal schools requires them to ask themselves such questions as these: Precisely what demands will be made upon these young persons in our care when they become teachers? How far can we anticipate these demands, and train our pupils to meet them? If we put them into the academic study of Shakespeare or quadratics or advanced science or any other subject not taught in the elementary schools, are we meeting such demands? If we are, wherein does our work differ from that of the high schools and the colleges? Why should we not yield the field to them? If we are not, why not drop such things, and go more fully about the real task that called us into existence? Are not the conditions ripe — as nearly ripe as they are ever likely to be — for us to abandon a certain sort of work forced upon us by the meagre preparation of so many of our pupils in the past? May we not safely presume upon adequate academic preparation hereafter, and let those who fall short therein bear the burden of their deficiency?

*Child Study.* — There is no surer way of finding out the neophyte's need and giving a right turn to her study of psychology than by bringing her into close, sympathetic touch with the child. The child is the teacher's problem; two children are two such problems. It goes without saying that the teacher needs to study her problem, not in books merely, but in the true laboratory way, — the problem being before her in the flesh and blood. Hence the model kindergarten, where she may study her problem in some of its earlier phases. Hence the model schools above, under expert teachers, where she may study it further. Hence practice schools, where she may try her hand at solving her problem. The sooner the normal pupil gets at her problem, the sooner her difficulties begin; the sooner these begin, the sooner her needs appear,

and the sooner, therefore, the normal school sees them and gets about the business of directly attending to them.

The subject-matter to be taught, important as it is, is not the centre about which the normal school should revolve. It is the child, rather, that is waiting to be taught. In excess of attention to the former, the latter is forgotten. Whatever the vagaries of modern child study, whatever the necessity for ignoring in the normal school certain phases of childhood research that may be proper in high special schools, where it matters less whether such research yields utilizable results or not, so long as it adds to the sum of human knowledge, nobody can gainsay the proposition that the vast machinery of public education has for its supreme object the right training of the child, and that the child, therefore, is the first and chief thing to engage attention in any scheme of normal training. Not until the laws of child growth are perfectly known, not until the varying capacities of children's minds are clearly perceived, not until the equipment of the school and the instruction of the teacher are nicely adjusted to such laws and varying capacities, will the problems of education be solved. This is the same as saying, no doubt, that full solution is unattainable; but it is also the same as saying that the only hope of progress towards solution lies in successful study of the child.

*The Good Work of the Normal Schools.* — While the dangers enumerated are real, while normal school teachers too frequently succumb to them, so that gaps open here and there between what is done and what the normal idea requires, it must be said, on the other hand, that none see these dangers more distinctly than the normal school teachers themselves. If their work does not rise to the full height of their ideals, it is partly because these ideals are so creditable to them, partly because untoward conditions in the material to be moulded stand forever in their way, and partly because it is common frailty for one's average effort to fall short of one's best. Nevertheless, it remains true that the Commonwealth is more indebted to its normal schools than to any other agency for such life, vigor, tone and hope as characterize her public schools. And the normal schools may justly enjoy the satisfaction of knowing that the widespread desire for their still greater usefulness is the product of that enlightened conception of what a teacher's

training should be which they themselves more than any other agency have inspired.

*Certain Ways of promoting Normal School Work and Efficiency.*—Among the themes that merit earnest consideration and progressive action in connection with our normal schools are the following:—

1. The appropriation of an additional sum for the aid of needy and deserving students. The amount annually set apart for this purpose is \$4,000. The addition of four new normal schools materially reduces the amount now available for each.

2. A sabbatical year. Each teacher should have one year in seven, or in some suitable number of years, for travel, observation and study, retaining enough of his salary to justify the taking of the year. The refreshment and new power thus gained would enrich their teaching.

3. Superannuated teachers. See page 133 of the sixtieth report of the Board.

4. Normal training for teachers of high schools. See page 123 of the sixtieth report of the Board.

5. Summer sessions at one or more of the normal schools. See pages 11 and 176 of this report.

*Resolutions of the Massachusetts Teachers' Association relating to Normal Schools.*—At the fifty-third meeting of this Association, held in Boston, Nov. 26 and 27, 1897, the following resolutions were adopted:—

*Resolved,* That purely academic instruction, which has for its object the acquisition of the knowledge of subject-matter without any reference to its professional use, should not be given in the normal schools.

*Resolved,* That there should be organized in one of the existing normal schools a separate department for the professional training of persons intending to become teachers in secondary schools, principals of schools or superintendents.

*Resolved,* That only college graduates and persons having an equivalent education should be deemed eligible for admission to this department.

*Resolved,* That the determination of the fitness of a person to enter upon the course of instruction in the normal school, and the maintenance of a high standard of admission to the course, should rest with the authorities of the normal school.

*Resolved*, That a certificate of good conduct and scholarship, and a recommendation of fitness, from the principal of the high school of which the candidate is a graduate, should have great weight in deciding upon his admission to the normal school.

*Resolved*, That some definite, practical study of the development of the child is an indispensable part of the equipment of the teachers of our public schools, and should have great weight in the selection of teachers.

These resolutions are timely and to the point. They reflect the views not only of the committee of normal school men, superintendents and teachers that drafted them, the chairman of the committee being the principal of our largest normal school, but also of a large body of intelligent persons who have given the subject serious thought. A single point in the resolutions — the suggestion of a place for the high normal instruction recommended — might indeed have been wisely left as an open question, since it concerns the administration of an educational policy rather than the policy itself; but, as a whole, they are welcomed as a potent endorsement of that policy for which the Board of Education has long been working and towards the full realization of which the normal schools, with varying rates of progress, are persistently moving.

#### MANUAL TRAINING AS A PART OF THE HIGH SCHOOL SYSTEM.

*Manual Training Law.* — Chapter 471, Acts of 1894, ordered that in every city of twenty thousand or more inhabitants a manual training department should be maintained as a part of its high school system. The law went into effect Sept. 1, 1895. Twenty-three cities, with a population of 1,494,906, are affected by the law. A full account was given in last year's report (pages 154–171) of the progress made in meeting the requirements of the law. Fourteen cities at that time had complied with the law, two had plans ready for execution as soon as their new high school buildings should be finished, and seven had taken no action. The situation continues substantially the same to-day.

The following table is based on reports of school committees for 1896–97, and does not include any changes that may have occurred since September, 1897: —

*XLVI. Table showing the Extent to which Cities of More than Twenty Thousand Inhabitants have complied with Chapter 471, Acts of 1894.*

CITIES.	Popula- tion.	Manual Training Status.	Teacher in Charge of Manual Training.
Boston, . .	496,920	Mechanic Arts High School, three years' course.	Charles W. Parmenter, Head Master.
Brockton, . .	33,165	One year provided for; longer course intended.	Oscar F. Sager.
Cambridge, . .	81,643	Cambridge Manual Training School for Boys, four years' course, private, but free to boys of the English High School.	Charles H. Morse, Super- intendent.
Chelsea, . .	31,264	Plan reported, but no action yet; crowded high school.	- -
Fall River, . .	89,203	Four years' course in B. M. C. Durfee High School.	William J. Woods.
Fitchburg, . .	26,409	Course begun, but not fully developed; four years intended.	Alden J. Foskett.
Gloucester, . .	28,211	No action taken, . . . . .	- -
Haverhill, . .	30,209	A two years' course in operation, . .	Walter F. Brackett.
Holyoke, . .	40,322	Course to be begun when the new high school building is finished.	- -
Lawrence, . .	52,164	Four years' course adopted and entered upon.	A. L. Fulkerson.
Lowell, . .	81,367	One year provided for; rest of course to be developed.	George R. Carothers.
Lynn, . .	62,354	Three years' course in operation, . .	William M. Holden.
Malden, . .	29,708	Two years already provided for, . .	Arthur D. Dean.
New Bedford, . .	55,251	No action yet taken, . . . . .	- -
Newton, . .	27,590	No action yet taken, . . . . .	- -
Pittsfield, . .	20,461	Course to be begun when the new high school building is opened.	- -
Quincy, . .	20,712	No action yet taken, . . . . .	- -
Salem, . .	34,473	No action yet taken, . . . . .	- -
Somerville, . .	52,200	Two years provided for; two years' extension under consideration.	Everett W. Tuttle.
Springfield, . .	51,522	Course of four years adopted, . . .	George B. Kilbon.
Taunton, . .	27,115	No action yet taken, . . . . .	- -
Waltham, . .	20,876	Two years provided for, . . . . .	Everett Schwartz.
Worcester, . .	98,767	Two years provided for, . . . . .	Walter G. Wesson.

*Manual Training in the Lower Grades.* — Some of the foregoing cities have provided for manual training in the lower grades. Boston has, for example, twenty manual training schools where regular pupils of the grammar schools may take a prescribed number of exercises per week. Cambridge has made provision for certain manual work on Saturdays; she is also considering a school for pupils that for various reasons should be taken from their respective classes and given a special course in which manual work shall be prominent.

Springfield has courses of knife work for boys. Waltham provides manual training for the boys of the four upper grammar grades. Haverhill and New Bedford have sloyd courses. There is a growing feeling that the educational value of manual training is such as to justify provision for it in the grammar grades of all cities and large towns. The Worcester school report gives expression to this feeling as follows:—

Manual training should be introduced into the schools very much earlier than the high school period, for several reasons. First, the curriculum of the high schools, as at present arranged, so fully occupies the time of pupils that comparatively few, at least in the classical school, can get the benefit of this course. Moreover, many pupils are compelled to leave school before they enter the high school, and therefore are entirely cut off from the manual training course. Secondly, the elements of manual training can be taught to children of eleven and twelve to better advantage than at a later stage. Thirdly, there is a moral as well as an intellectual advantage that comes from the correlation of the hand with the brain that is very much greater in earlier years.

Accordingly, a recommendation has been made in Worcester that the boys of the ninth grammar grade be given exercises, at least once in two weeks, in the shops of the high manual training school,—a plan involving but slight additional expense for the school.

*Domestic Science for Girls.*—Some of the foregoing cities have made provision for instruction in both sewing and cooking,—notably Boston, Haverhill, New Bedford and Springfield. Twenty of them teach sewing. All of them, Taunton excepted, have supervisors of drawing who do something in the way of connecting elementary manual work, like clay modeling, paper cutting, etc., with their drawing instruction. In some of these cities the question is seriously asked, “Why should there not also be a course in high manual training, including the various branches of domestic science, for girls?” The law requiring high manual training does not exclude girls from its provisions, and the arguments that enforce the value of such training for boys apply with equal force to girls.

*Cities and Towns under Twenty Thousand that provide Manual Training.*—Many of the smaller communities of the



State, like Bridgewater, Brookline, Easton, Milton, Watertown, Winchester and Woburn, have established woodworking, sewing and cooking courses for certain grammar grades. Arlington, Belmont, Concord, Dedham, Marblehead and Medford have established woodworking and sewing courses; Everett, North Adams, Peabody, Rockland and Williamstown, sewing courses; Lexington and Northampton, woodworking courses. Arlington's courses extend into the high school. Other towns have plans for such work either framed or under contemplation.

*The Educational Value of Manual Training.* — It is the misfortune of manual training that a wide gulf exists between the ideal training intended and the poverty of the name that is popularly given to it. This name is too suggestive of the hand, of a kind of finger deftness, of a training that is not seriously mental, of a sort of discipline meagre in æsthetic and moral elements, of a preparation for the shop rather than for a broader life; and so one of the grandest thoughts in education has to struggle against the opprobrium that goes with the poverty of its best known descriptive epithet. This great thought is that ideas are the embodiments of force; they have a dynamic character; they stir the motor areas of the brain; they tend to discharge themselves in action; they impel, in short, to the doing of things. Now, the energy that would express itself in ideas may be squandered, like any other energy, in innumerable petty, neglected rills, or it may be gathered up, concentrated and made to do work, precious in itself in utilitarian ways, and precious in its reaction on the mind in intellectual and moral ways. Nay, neglect of such guidance of the child's activity into channels of well-considered work is neglect of the child himself. Education of the child that goes on in strictly bookish, sedentary, inert ways reaches only half the child, and makes less of that half than it ought. It engages the brain in but a part of its activities. It leaves the rest to grow as Topsy grew. It ignores the wonderful possibilities there are in training the motor areas of the brain to co-operate with the sensory, — possibilities, on the one hand, of making the physical activities glow with increasing intelligence, and, on the other, of having these activities react in a most invigorating way upon the intelligence that inspires them. The tiny associative fibres

that bind together the sensory, motor and other regions of the brain, multiplying and growing so as to reflect, as it were, the kind and the extent of the coördination that is secured among these regions, are the physical expression of educational processes that merit profound study and discreet guidance. Were it not for the child's spontaneous activity, — an activity always struggling to assert itself, schools or no schools, — he would not fare so well as he now does. Such unguided activity, if not so educationally telling as it ought to be, is, in its way, the child's support and defence in such schooling as he receives. This activity has brought him, indeed, countless woes at the hands of those who have misinterpreted it, but his rebel attitude towards everything that would crush it still persists. When will the world learn that nature is more the rebel than the child? Take account of his active nature, give it a fair field, utilize the energy that bubbles up and is running to waste, and the rebellion is over. Among the many definitions that may be given to education, this is not without value: education is nobly-inspired and well-ordered self-activity. No educational process covers the field that does not reckon with all the ways in which such activity tends to express itself, — ways to be checked as well as ways to be encouraged. A good school is a successful agency for directing and utilizing the activity of children. And the activity of children is at its best when it leads from play up to work, — we want men of action; from instinct up to deliberation, — we want men of reason; from interest up to will, — we want men of character; from dependence on others to dependence on self, — we want men of self-reliance; from selfishness up to altruism, — we want good citizens; in short, from the lower, natural, uncultured self up to the higher, ideal, educated self, — we want the best of which men and women are capable.

#### THE SCHOOLS IN GENERAL.

*Information through School Returns.* — Such information as is gained from school returns about elementary and other schools is chiefly statistical. It is true that certain inferences may be safely drawn from figures. It is highly probable, for instance, that children cannot receive so much instruction in six months as they might in ten; that teachers whose services

command only \$20 a month are not so well qualified as those whose services command \$60 or \$75; that old schoolhouses out of repair are less healthful than schoolhouses with the latest sanitary improvements; that a town without a superintendent of schools has its strictly educational interests less efficiently looked after than a town with one; and that a low percentage of attendance means diminished results from the schools. But there is a limit promptly reached in such deductions as may fairly come from statistics.

*Information from School Committee Reports.*—From the towns of the Commonwealth there come to the office each year three hundred and fifty-three school reports. They are bound in convenient volumes, and find their way at length to the State library. In these reports may be found the history of the schools in detail as far back as 1839. Some committees have wisely kept in thought the value of their reports to generations yet unborn, and so have made them repositories from which complete histories of their schools from the remotest beginnings can be readily gathered. Earlier annual reports of the Board were largely made up of abstracts from these reports. In this way the drift of the better sentiment of the State was made known in ways helpful to the schools. There was a strength in the consensus of views thus shown that was missing in any single expression of them. No abstracts have been published in a State report since the thirty-ninth. While it is not desirable to return to abstracts, in the old way, yet if each year excerpts from committee reports on some single educational theme that is stirring the public should be printed in the State report, the matter could be kept within bounds and would undoubtedly prove valuable.

Perusal of committee reports shows that they freely use material from the State reports. On the other hand, the State reports are indebted to the committee reports in scores of ways for the illumination of the usual school returns. Some of these reports are admirable in form, matter, comprehensiveness, definiteness; they have more than a local value, as outside calls for them sufficiently indicate; the painstaking work of skilful superintendents is conspicuous in their excellence. The average report is a faithful, though sometimes meagre, presentation. Now and then signs of perfunctory, if not of careless,

work are obvious ; while once in a while there comes a report whose English is so slovenly that one is led to wonder how the "schoolmaster abroad" came to be entrusted with the writing of it.

*Information through the Agents.* — It is through its agents that the Board gets nearest to the actual school conditions of the State. Messrs. Prince, Fletcher, MacDonald and Bailey have personally visited during the year 1,254 schools. To this number should be added those visited by Mr. Edson up to the time of his resignation, and by Mr. Sargent, who, under a special arrangement, has worked on what may be called a half-time basis as an assistant of Mr. Bailey in drawing. For valuable information respecting their work, reference should be made to their several reports in this volume.

*New Division of Work for Agents of the Board.* — It is to be hoped that the time is near at hand when supervision by superintendents of schools shall be the universal and finally fixed policy of the State. When this time comes, — perhaps before it comes, — the field of general all-round school work may well be left to the local superintendents. The State should then aim to assist the school authorities with service of a special, expert sort at critical points in the general system. The divisions of this service should correspond to the grander divisions of what the schools should aim to do, — particularly to those phases of work in which, because of their novelty and the lack of general acquaintance with them, the school authorities stand most in need of aid. The titles of the agents should hold some relation to the special service rendered by them. What is suggested here is simply an extension of the plan that is already applied to drawing. The Board employs an agent who is technically called the "agent for the promotion of industrial drawing," but popularly known as the State supervisor of drawing. In like manner other agents employed by the Board would be supervisors in specially assigned fields. The present needs of the schools suggest an organization somewhat as follows : —

1. A supervisor of teachers' qualifications, to work with a board of examiners, and with such aid as the magnitude of his work suggests, in conducting all State examinations, voluntary

or required, for teachers' certificates; to guide by appropriate suggestions and in various ways the preparation of candidates for admission to the normal schools and of candidates for State certificates; to visit normal schools, and, in co-operation with the authorities thereof and the secretary of the Board, to work for the increased efficiency both of the normal school teachers and of the pupil-teachers trained by them; and, in general, through addresses, reports, conduct of examinations—oral, written or observational—and related work, to stimulate thoroughness of preparation for the teaching profession. The present law for the State examination and certification of teachers is awaiting such an officer, for reasons fully set forth on pages 126–128 of the fifty-ninth report. Should the State insist, as in the near future it ought, upon some minimum of professional preparation from every new teacher, the need of such an officer would be imperative.

2. A supervisor of drawing,—an officer the State now practically has. The great skill and admirable accomplishment of the present supervisor are full of suggestions as to possibilities for good in other departments of State work for the schools, should they be similarly organized with reference to single lines of school needs.

3. A supervisor of manual training, whose service would be especially timely, now that manual training both for boys and for girls, in the lower schools and in the higher, is engaging the thought of more than half of the Commonwealth. Intelligent guidance here, in the light of the world's best experience and thought, would be heartily welcomed. No agent of the Board, in any lull of his present multifarious duties, can hope to furnish such guidance. It requires the undivided attention of a specialist.

4. A supervisor of physical culture, whose field of work should be the sanitary condition of schoolhouses, the physical needs of children, feasible and profitable systems of school gymnastics, physiology and hygiene, the best methods of temperance instruction, and, in general, the consideration of ways and means of promoting that physical health in the schools upon which intellectual attainment is largely conditioned.

5. A supervisor of nature study,—an officer whose hands

would be full from the date of his appointment, such is the growing importance of this study in the schools and the growing need for enlightened guidance in it.

6. A supervisor of high schools, with the 262 high schools of the State and their 40,000 pupils for his field of labor, — their relations to schools below and above, their courses of study, their laboratory facilities, their conformity or lack of conformity to State requirements, and the like. Should the State define more satisfactorily, as it ought, the kind of high school which the towns are required to maintain, and take pains, as it ought, to see that all the towns rise, as large numbers of them are certain to do, to the spirit of such statutory definition, an agent with the title and duties suggested would become still more valuable.

Theoretically, every large school interest of the State merits the full time of an expert. Practically, it is probably better to select for expert service those fundamental interests that are more likely to be handled unskilfully or to be neglected altogether. So far as outlined, the plan requires only six persons, — no more than the Board had in its employ in 1896. There would be no serious objection to a somewhat gradual transition from the old plan to the new.

The two plans can be carried on side by side. Indeed, that is what is done to-day to a slight extent, — one agent being a specialist and the remaining three being general workers. Should it be deemed advisable to retain general workers in deference to present conditions, while employing specialists for all the fields indicated, nine persons would be needed. The Board of Education has full power in the matter up to the limit of its specific appropriation therefor. The legislative trend of late has been towards narrowing that limit. Is the trend in the right direction? The secretary's conviction of the worth of expert service to the schools, both through local superintendents and through agents of the Board, is very strong. If Massachusetts desires to retain her honored place in the public school annals of the Union, she must rely very largely upon the knowledge, the wisdom and the skill of persons who are fitted to care for the schools and who are enthusiastic and tireless in devotion to them. With all she has to be proud of, the need for missionary work has by no means ceased. The quality of super-

vision is a legitimate thing to criticise ; improvement therein, a legitimate thing to work for ; but anything like knocking away the ladder or even breaking rungs in the ladder by which her schools have risen and may yet rise in efficiency should be discountenanced. Improve the supervision, both local and State, and pay the price of the improvement, on the theory that it is the best of all possible investments. If such improvement sweeps away any of the supervisors that urge it, they may have the consolation of pressing for better things, though the pressure cost them dearly.

*A Course of Study for Elementary Schools.* — No course of study can be regarded as satisfactory if it is not modified from time to time in response to changed conditions or advancing thought. The State course is helpful to many schools, but the time has come for making it better, if it can be done. Work has been already begun in this direction, but the magnitude of the task, with the scant time at the disposal of the office to work upon it, makes the progress slow. There are what seem to be, at first glimpse, two conflicting modes of procedure in planning a course of study. There is, on the one hand, certain culture-material well recognized by the world as available for education purposes, — mathematics, the natural sciences, history, language, literature, etc. Let each of these subjects be developed logically from simple beginnings, and let suitable portions of each be assigned to the several years of the elementary course. Thus a course of study is built up from the point of view of certain subjects to be taught. In this way the course of study has generally been mapped out and teachers have bent their energies to squaring their pupils with it. Education is conquest of the course ; its value is the good that comes through such conquest. On the other hand, there is the child to be educated. There are his inborn powers to be developed, his differences from his fellows to be respected, the laws of his growth to be observed. His education is his highest development along such lines of promise as nature has marked out for him. He has what are called his nascent periods, when he can best do things ; he passes through stages of spontaneous interest, now in one activity, now in another, — stages his teacher should detect and utilize ; he can never rise above or get beyond the standards that slowly form in his own

mind, and so he must be patiently regarded while such standards are growing. To give him too much to do because a course of study transcends his capacity, or too little because a course insults that capacity, to give him untimely things to do because a course does not respect the demands of his nature, — all this is a misuse of the child's energy; it involves waste, if not cruelty. It is not the child that should be adjusted to the course, but the course to the child. The child's claims are the supreme ones, not those of a scheme framed without adequate thought of the child's relations to it.

And so the two modes of building up a course of study stand out in seeming antagonism. The points of view are wide apart; from one, the construction of a course is an objective process; from the other, a subjective process. From the former standpoint a logical unity in certain external culture-material is sought; from the latter, a psychological unity in meeting certain internal needs of the child. The discord, however, is more seeming than real. It is the old mistake of ignoring the other side of the shield. That the child's needs should determine the course may be accepted as an axiom, while, on the other hand, what the experience of enlightened nations has settled upon as the sort of culture-material best suited to meet these needs must also be accepted with equal confidence. The very existence of well-defined subjects of study for the schools — the same subjects everywhere — is due to the gradually developed satisfaction of people with their fitness to meet the needs of the expanding mind. And so we come back at last to the supreme importance, not of the course, however carefully laid out it may be, but of the administration of it. It is the teacher finally to whom we must look if we would secure the right reactions between the child's nature and the appropriate objective material. To this end, he needs a flexible course; he probably needs to have as many standards of attainment as he has pupils; he needs a handsome margin, therefore, within which to respect the wide range of tastes and capacities in his pupils. His problems are not to be solved by some course of study yet to be framed, but by careful study of the child's needs or of expert investigations into those needs and of ways and means of meeting them. For such a teacher there will be no lack of material in any reputable course.



*Multiplicity of Subjects.* — The seeming multiplicity of subjects in the modern elementary course is largely due to a false assumption that a subject separately mentioned in the course should have a separate assignment in the daily program of lessons. In this connection the secretary thinks he is justified in saying again what he said in the sixtieth report : —

Many new subjects have been put into elementary schools within a few years, in response to demands for enrichment. The schools are becoming heavily burdened in many towns in consequence of such expansion, and the question is earnestly asked, “ Is there not danger of sacrificing thoroughness in a few things to a surface acquaintance with many things?” Undoubtedly there is a limit in this enrichment beyond which the schools cannot go. The only limitations, however, that merit serious recognition in framing a course of study are to be found in the child, not in the teacher or in school conditions. If teachers are lacking in scholarship or training, if equipment is inadequate, if general school conditions are adverse, — all these are limitations, indeed, but they ought to be overcome. But the limitations in the child, whatever they are, need to be respected. In other words, if the child can conquer and assimilate a theme, and profit by so doing, while the teacher does not know it or does not know it well enough to teach it, the curriculum should respect the child and not the teacher. The complaint of the teacher in a case like this, that the curriculum overburdens him, is doubtless true enough, but it is not legitimate. The curriculum should be built up from the standpoint of what the child can do and ought to do, when the teaching, equipment and circumstances are all propitious. When the curriculum in breadth or depth or both nears the confines of the child’s capacity, there it should stop.

The sense of overcrowding and pressure that has come to many schools is largely due to an exaggerated view of the demands the new subjects are supposed to make upon the schools. When a new subject is introduced, the trend is to think of it as one to be taught continuously, every day in the week and every week in the year, through successive years, like arithmetic or geography, as pursued in the old way. If new subjects are viewed in this way, as so many independent lines of work to run parallel with the old and continuously like them, it is not strange that the curriculum becomes swollen, that subjects crowd one another, and that teachers become worried and feverish. And the sense of pressure is increased when experts in the new subjects, unchecked by considerations of what other subjects demand, elaborately unfold them for the guidance of teachers, each

his own subject in a separate way, showing in what order and in what years its various facts and principles should be taken up. Thus each new subject stands out isolated and formidable, — an additional claimant for a coördinate place with the old interminable arithmetic and geography. Now, this unhappy result of enrichment was never intended and is not believed to be necessary. Indeed, it is not the result of true enrichment at all, but rather of mistaken ideas as to the nature of enrichment.

The foundation idea in the new movement, which, by the way, is a world movement and not a local one, is that, instead of pushing the study of three or four themes that deal more with the means of expression than with the things to be expressed, and that cover, at the best, but a small part of the child's world, — instead of pushing these continuously through the years, often beyond the child's capacity and still oftener beyond his interest, it is better to give him a larger number of themes, to be selected from the world that excites his wonder, and so more easily within his tastes and powers, but not to be pursued so relentlessly through all his schooling.

Another way of expressing the same thought is this, — that the child receives a far better training when he is led into the study of themes that stir his emotion and excite his thought than when he is narrowed down to the mere means and forms of expression. Nay, he will make more rapid progress in conquering the language itself of expression if he is led to employ that language upon things worthy of being expressed. Here is a sense in which he can do two things better than one.

The subjects of the curriculum should be gathered into a few groups for which as groups time may be found. Within the limits of these groups the enriching themes should be handled, in helpful association, not with the thought of presenting such themes in any relatively complete and exhaustive way, but with the thought rather of firmly fixing in connection with them certain axes, centres or nuclei of principles, about which, outside of the schools as well as within them, other thoughts may gradually and naturally tie themselves. The framing of such a curriculum in which breadth shall not imply a depressing multiplicity of separate themes, with sufficient minuteness to guide the teacher aright, but with sufficient suggestiveness to afford him a handsome margin of freedom in his work, is a problem upon which many minds are now at work. The State course of study, helpful as it is to teachers, undoubtedly needs to be revised. It is too suggestive of a distracting multiplicity of themes; it should lead the teacher rather to grasp the ideas of association, concentration and unity that should underlie his instruction.

If the subjects of mechanics, pneumatics, sound, heat, light and

electricity should be placed in a high school curriculum as so many separate and independent themes, and if the teacher thereof should complain of a multiplicity of subjects, because of his assumption that they each should be taught continuously six months or a year, thus crowding one another and everything else, the complaint would not be regarded as well founded. It would be met at once by putting the six branches under the single head of physics, and so dealing with them all, each in a reduced way, as a single study. Some of the separately mentioned and developed subjects of an elementary course should be handled in the same way.

In all this it is not meant to be implied that there is no danger in multiplying subjects of instruction. That danger, because of the numerous possible themes and the championship any one of them, as a separate theme, may justly have, is very great. It is only urged that considerable enrichment is possible without unduly multiplying separate lines of work, and that much of the alleged multiplicity would cease with an improved conception of the nature of the desired enrichment.

*Reaction from the Graded System.* — It was an immeasurable gain upon the wasteful ways of the old ungraded school when the graded system was adopted. It did away with that preposterous lack of system under which classes were determined by the whims of parents or of pupils, or by such varied and antiquated school books as were handed down from the older children to the younger, or even as heirlooms from former generations, — classes that sometimes outnumbered the membership of the school two or three to one. It is needless to rehearse the advantages of the graded system, so generally are they recognized. But there is an evil in focussing attention too closely upon a prescribed course. It creates a trend on the teacher's part towards assuming the possibility and desirability of even grading. If pupils rise to the course, well and good; if not, they do not work hard enough or the teaching is at fault. That some are abundantly able to forge ahead of the course requirements, that others can never hope to satisfy them, that extremes of capacity are wide apart among pupils of the same age or class, that rates of progress can never be the same, — thoughts like these do not properly impress the teacher whose point of view is a scheme of study to be compassed. The fact is that the most careful grading, according to attainment, is only a rough approximation at the best. If there is anything

like evenness or equality in the grades, it is to be found in opportunities enjoyed rather than in results achieved.

And so the conviction is becoming strong that the grading of children should be of a more plastic or flexible sort, that opportunities should be more frequent for children to move along in their studies, and that great consideration should be given to those that tend to fall behind. It is as important that the momentum of successful study shall not be checked on the one hand as it is that the burden of unsuccessful study shall not be made heavier on the other. To retain the advantages of grades and classes on the one hand and to respect the varying rates of individual development on the other, — this is a problem on whose solution many are hard at work. There are possibilities here of great savings in the money cost of the schools as well as in the intellectual progress of pupils. In the city of Cambridge, for instance, under a plan devised by Mr. Cogswell, the superintendent of schools, pupils frequently complete the six years' course of the grammar schools in five years and even in four. An investigation into the standing of these four years', five years' and six years' pupils in the Cambridge high schools shows that in all the classes to which the inquiry extended, the four years' pupils stand highest, the five years' next and the six years' lowest. It may be said, and justly, too, that such results ought to be expected, since only the more capable pupils would be likely to do six years' work in five years or four. But, if a bright boy can do six years' work in four, this means that he can do nine years' work in six. If he remains in the grammar school six years without incentive or opportunity to do nine years' work, then an injustice is done him, his parents, the school, the tax payer, and, conceivably, the State or the nation. The reduction of six years' schooling to four, for any considerable number, means a large reduction, and a justifiable one, if there is no intellectual loss, in the cost of the schools. For a fuller consideration of this theme, reference should be made to Mr. Prince's report.

*The Rural Schools.* — The rural schools of Massachusetts continue to be sources of great solicitude. That children admirably qualified by inheritance and by the discipline of simple country life to profit by the best schooling should often receive the poorest is not to be viewed with indifference. One cannot

study the returns from rural towns without finding abundant evidence that many of them are making a gallant fight for better schools under losing conditions. Their ability to keep up this fight has for years been slowly waning, through the heavy drafts of the city upon their best blood, and the children whom they train, if we except a few to keep the hearth fires alive at home, are morally certain to go the way of their predecessors. Mr. Barrus, of the State Tax Commission of 1897, in his contribution to the report of the commission, graphically sets forth the problem of the rural schools as follows : —

The same causes which have taken away the roads and driven out the inhabitants have by a similar process taken away the schools with like results. The cities, looking to the hills whence their strength cometh, have places for all the bright, active graduates of the high schools of the country towns, either as teachers, clerks or in other positions of responsibility, until in many towns there is not a graduate left. The “kind return” given for these, the best the town affords, are the waifs from the city missions, the abandoned children of the drunkard and criminal classes, street gamins and the various other pauper classes, with all the attending diseases of body and mind. The State wards pay to the towns fifty cents per week for their schooling, but the mission children go free. The law should be amended, so that both classes be paid for alike. These city children are placed in the country families and schools by scores to be recreated, taught habits of industry, and, if possible, reared to respectable manhood and womanhood. It is an open question whether, while the city child is being elevated to a higher plane, the contamination does not sink the country child to a correspondingly low level.

Having entered somewhat at length upon the recital of causes under the head of highways that have led to the depopulation and the decline in value of the lands of the farming or hill towns, it is well-nigh a repetition of the same causes to show that, after the roads are taken away and the population dispersed, the schoolhouse is removed to another centre of population covering a much larger field, thus requiring a walk or transportation of the children from these isolated farms two or three miles along a lonely and tramp-infested road to the nearest schoolhouse, and not infrequently into another town. No wonder the last remaining families in that neighborhood keep their children at home or else abandon the entire section, as may be seen in many a town where at least one third of their former populous streets have not a house left upon them, and two thirds of their entire population is gone. Meanwhile, more weeks of schooling were de-

manded and better wages for teachers. Under certain conditions the State would help the poorer towns, but in no case could the amount raised by the town be lessened, — an increasing burden, since the valuation of such town was constantly decreasing.

Mr. Fletcher's work in the counties of Berkshire, Franklin, Hampshire and Hampden is very largely among the rural schools that abound there. Reference should be made to his report for a further account of them.

In 1895 a committee of twelve was appointed by the National Educational Association of the United States to consider the problems of rural schools and to make recommendations for their welfare. The report has the weight of the finest expert endorsement in the country, and is a very valuable one. While here in Massachusetts we think much needs yet to be done for such schools before we can fairly be entitled to feel satisfied with our accomplishment, it is interesting to note that the other States are looking upon Massachusetts as making hopeful progress in dealing with her problems and as blazing a pathway to their solution for other States to follow. Extracts from this valuable report will be found in the Appendix.

### SPECIAL SCHOOLS.

["Every institution for the instruction of the deaf, dumb and blind, when aided by a grant of money from the State treasury, shall annually make to the Board such a report as is required, by sections sixteen and seventeen of chapter seventy-nine, of other private institutions so aided." (Public Statutes, chapter 41, section 15.)]

*Special Schools for Certain Defective Classes.* — It is the policy of Massachusetts to make schooling as free for educable children whose defects forbid their attendance upon the public day school as for their more fortunate fellows.

The following is a list of the special institutions to which such persons may be sent upon recommendation from the Board of Education to the Governor: —

1. The American School, at Hartford (Conn.), for the Deaf.
2. The Clarke School for the Deaf, Northampton.
3. Horace Mann School for the Deaf, Boston.
4. Sarah Fuller Home for Little Children who cannot hear, Medford.

5. Perkins Institution and Massachusetts School for the Blind, Boston.

6. The Massachusetts School for the Feeble-minded, Waltham.

The Horace Mann School is a public school of the city of Boston, the Waltham school is a public school of the Commonwealth of Massachusetts, and the remaining four are private schools.

*Number of Schools for the Deaf in the World.* — From Circular No. 4, issued June 1, 1897, by the Volta Bureau of Washington, D. C., for the increase and diffusion of knowledge relating to the deaf, it appears that the number of schools for the deaf in the world and the number of pupils therein are as follows : —

COUNTRIES.	Public Schools.	Private Schools.	Unclassified Schools.	Number of Pupils.
Africa, Asia, Australia, .	7	6	4	502
Europe, . . . . .	245	111	64	22,274
North and South America, .	82	23	4	10,201
Totals, . . . . .	334	140	72	32,977

*Methods of Instruction.* — These schools may be divided into two grand divisions, according to the means by which their instruction is affected, — one division comprising all schools in which pupils are taught by speech and other vernacular means, and the other division comprising all schools in which pupils are taught by the sign language and by any or all other means. From the circular of the Volta Bureau we take the following definitions of these two groups : —

“ By speech and other vernacular means ” implies that reading and writing, speech and lip-reading, all forms of finger spelling or manual alphabets and natural gestures, such as are used in the instruction of hearing children, are admissible ; that, however, any sign language employing fixed expressions foreign to the grammatical construction of the language of the land, or a “ language,” or “ dialect ” of gestures not

capable of word-for-word translation into the vernacular, is strictly excluded in the instruction of and intercommunication between pupils.

“By the sign language and any or all other methods” implies that a sign language acquired by the pupils at school constitutes, in a greater or less measure, the means of imparting instruction to them, and that it is used as a means of intercommunication between pupils and teachers. In addition to this special language, finger spelling, writing, speech and lip-reading are employed, when such means of communication are considered practicable or preferable in imparting instruction.

The following statement gives the number of deaf pupils in the world taught by these two methods : —

COUNTRIES.	By Speech.	By the Sign Language.	Unclassified.	Totals.
Africa, Asia, Australia, .	300	127	75	502
Europe, . . . . .	18,176	3,778	320	22,274
North and South America, .	3,382	6,814	5	10,201
Totals, . . . . .	21,858	10,719	400	32,977

*Classification of Schools for Massachusetts Beneficiaries.*  
—If the classification of the Volta Bureau is adopted, the American School for the Deaf at Hartford belongs to the sign-language group; the other schools for the deaf to which Massachusetts sends children belong to the speech group. The speech or oral method is freely used at the American School, and increasing stress seems to be placed on its value, but the school does not hesitate to use, upon occasion, any variety of sign teaching. The fact that our schools for the deaf are divided into these two groups explains certain differences of opinion and attitude in relation to methods of instruction that occasionally characterize their reports to the Board. The grand purpose of restoring the deaf to their lost place among hearing people makes it imperative, in the thought of one group, that the deaf should depend almost exclusively on oral methods, and avoid everything that might tend to weaken such depend-



ence. They may hope to attend the public day school, profit by the public lecture, move in the social circle, and be at their ease with those who talk, if they will but use the means for so doing with sufficient earnestness and stringency. The use of signs, in the thought of the other group, has a legitimate place in instructing the deaf. It facilitates the intercommunication of pupil and teacher; it increases the versatility of the pupil; it is especially helpful where oral methods are too exacting or promise scant results; it need not interfere, however, with progress under oral methods in cases that prove suitable for such methods; eclecticism is the only sound philosophy in a school for the deaf.

And so the discussion goes on as to the soundness of the one or the other position. One conclusion seems to command universal approval; it is this, that, if there is any likelihood that the deaf child, taught by oral methods, will be set free from his isolation and made to feel at home with hearing people, it is exceedingly desirable that he shall be so taught. The measure of that likelihood, however, is not the same for our rival groups; hence it leads one to advocate strictly oral methods, the other to favor eclectic methods.

*The Visitation of the Special Schools.* — The Board of Education has a committee of three to visit these schools. The secretary has visited most of them, to acquaint himself with the conditions under which they work. He has been particularly impressed by the sharpness of definition in the educational problems which schools for the defective classes present. There is something bald, weird and startling about these problems; they will not down; they challenge solution; those that deal with them cannot fall asleep in their presence. Not long ago the secretary watched a company of eight or ten feeble-minded young men at the Waltham school as they were digging a drain. It was the overseer's duty to keep them at work. This he did by going along the line, inciting each in turn, in the spirit of a teamster urging on his oxen. "Put your pick in here!" "Be lively there!" "What are you resting for?" And so he managed to extort something from his witless workers, but no sooner did he get to the end of the line than the workers at the beginning were pausing on their pickaxes and staring about with open-mouthed and pathetic

vacancy. There was intelligence enough to use the pickaxe, there was muscular strength enough, and there seemed to be willingness to work; but the power of attention was wanting. There was the problem, — whether it was possible for the feeble mind to hold itself down a little more persistently to the pickaxe, and, if so, how it could be led to do it. The younger cases at Waltham that are thought to be improvable are put into schools. Intelligence in the teacher seems to be needed here in some inverse ratio to intelligence in the pupil. The failure of an unintelligent teacher among normal children is to some extent covered up. Not so in a school for the feeble-minded; the teaching must be highly intelligent or the teacher's failure highly conspicuous. There is no other alternative. It is not an infrequent sight, — a school for normal children yielding results in vivacity, interest, seeming power, inferior to those obtained under skilful teaching from the clouded intellects at Waltham. There is a sense in which good teaching in wretched soil may make a better showing than poor teaching in fine soil, although of course it must remain true that the normal child, let him be taught never so unskilfully, cannot but surpass the feeble-minded.

*Public Schools for the Feeble-minded in Large Places.* — One or more schools for the feeble-minded in every large city would doubly pay for themselves. There are children whom it is hopeless to move along either with their own classes or with any classes below to which they might be relegated. They cannot be individually taught without withdrawing an undue share of the teacher's attention from the rest. Nay, they would not fare well even if they received such excessive attention, because they need something like special and expert instruction. If gathered into special schools, this would greatly relieve the other schools and so contribute to their efficiency; moreover, it would favor better instruction for such children than they could possibly obtain otherwise. The plan is under trial in the city of Providence, and has a promising outlook. Special schools for children difficult to manage would also be, for similar reasons, in the interests of economy and efficiency.

## THE AMERICAN SCHOOL, AT HARTFORD, FOR THE DEAF.

JOB WILLIAMS, L.H.D., *Principal*.

Number of Massachusetts beneficiaries during the school year 1896-97, . . .	66
Number admitted from Massachusetts during the year, . . .	7
Number in school from Massachusetts at the present time, . . .	65

Mr. Williams, the principal, submits the following report, under date of Nov. 9, 1897:—

The school year of 1896-97 has been one of uninterrupted prosperity. The whole number of pupils in attendance has been 154, of whom 66—40 boys and 26 girls—are from Massachusetts.

The general health of the school has been excellent, and satisfactory improvement has been secured in every department of the school.

Few people who have not had experience with the deaf realize how nearly blank their minds are when they first come under instruction. The hearing child at eight years of age in an intelligent family has an easy use of most of the common forms of language and of a large part of its idioms. He has learned language without any conscious effort on his part by its constant repetition in his hearing. He absorbs it rather than learns it. When he enters school he has a good outfit in the matter of language with which to pursue his studies. Not so with the child born deaf or deprived of hearing in infancy. Before he can begin the acquisition of knowledge, he must first make the tools with which to do his work, and learn how to use them with skill and facility. Years must be spent in the study of the English language before the deaf child can get a command of it equal to that possessed by the hearing child at the age when the deaf child starts on his school course. As a consequence, the deaf child has a double task in every lesson which he learns,—a difficult lesson in language and an easier lesson in the acquisition of the facts recorded in the language. In spite, however, of his heavy handicap the deaf child of fair ability makes very gratifying progress in both respects. Judgment should be passed and credit given upon the progress he has made from the zero point upward and not from the perfect standard downward.

The teacher's task is a difficult one, and the best results can be secured only where skill has been acquired by years of experience in this special line of instruction. This school is fortunate in possessing a large corps of teachers rich in experience.

The method of instruction remains substantially the same as at the time of our last report. It is thoroughly eclectic. No aid which is found useful in reaching the mind and developing character is entirely

rejected, but free gestures, so useful when properly restrained, but a hindrance to progress in the English language when relied upon chiefly as a means of instruction and expression of ideas, are restricted more and more to their proper and necessary use. For clear explanation in certain cases and for addressing large numbers of the deaf, nothing can equal them in stimulating the mind and touching the heart. But the aim of all school instruction should be to aid the pupil to master the English language, in order that he may have easy communication with the hearing world about him through the English language, — by spoken English in all cases where possible, but when that proves impossible, by written or spelled English. So, while the deaf pupil is studying history or geography or philosophy or any other branch, his chief aim should be to master the facts of his lesson. He should consider it of indispensable importance, in view of his future relation to hearing society, to absorb, digest and make his own the language in which the facts are expressed. Thus the world of books will be opened to him, and all the rich storehouses of the thought of the past and of the present he may freely enter and take away all he has the ability to carry.

In harmony with the specializing tendency of modern education it is proposed to establish a class to be taught by the purely oral method for the year 1897-98. Four teachers give all their time to instruction in speech and lip-reading, and another a part of her time. To every child entering the school we endeavor to give speech and lip-reading to his full capacity in those lines; but when there is failure to secure intelligent speech and lip-reading, spelled or written English, which can be acquired by all, forms a surer, more rapid and more profitable means of communication, and a large part of the recitations of the school are so conducted. There is no surer way of fixing language in the mind, even of the hearing, than by constantly expressing one's ideas in writing. Speech, while even a small degree of it is valuable, is not education, and the want of it must not be allowed to stand in the way of reaching the intellect and stirring the heart. Mental and moral development must stand before everything else. Many a child, while not gaining spontaneous fluency of speech or accuracy in lip-reading, yet acquires a degree of speech that proves very useful to him among his friends and intimate associates; but it would be a great loss to him — a mental dwarfing — to be confined to that means of expression while pursuing his education.

A radical oralist, a man at the head of a private school conducted on the purely oral method, made the following candid statement, in an article recently published in the "Century" magazine, as to the results achieved in purely oral teaching. Speaking of the results attained by the congenitally deaf, he says: "I do not claim that they

are on the same footing as hearing people. They cannot be; their speech is never perfectly natural, and they can never take part in general conversation as those in the possession of their hearing." That is a very fair statement of the truth in the case, and parents should understand it, and not be led into false expectations by the exaggerated claims of over-zealous partisans of pure oralism. What follows? This, — that, where the purely oral method of instruction is used, the pupils who acquire fluency of speech and lip-reading can push forward in their mental development, but that all who fail to attain that fluency must be hindered in their mental development in degree corresponding to the degree of failure in the acquisition of speech and lip-reading, as they have no alternative of mental process. For this reason we believe it unwise to confine the instruction of the deaf to any one method. We should make sure of the mental and moral development of the pupil, and co-ordinately give speech and lip-reading to the limit of the pupil's capacity. Teach speech, speech, speech by all means, and to the fullest degree, and use it whenever practicable in school and out of school. Encourage it at all times, and let non-English means of communication be discouraged wherever the English language will answer equally well. English, either spoken, written or spelled, is in the main the language of our school exercises.

Eleven years ago Albert Nolen entered our school. Born deaf, he lost his sight at five years of age through brain fever. Then for several years he groped in darkness, having no sure means of communication with those about him. Naturally bright and possessed of a large degree of curiosity, he had kept his mind through the sense of touch from utter stagnation, but the first steps in teaching him words and their meaning were very difficult and slow, requiring unlimited patience, ingenuity and perseverance. For the first three months of his school life Miss Kate C. Camp was his teacher, and she laid the foundation for his future success. Since the resignation of Miss Camp, Albert has been under the instruction of Miss Flora L. Noyes, a graduate of our school. Considering the difficulties under which she has labored, he has made remarkable progress. He uses the English language with a freedom and correctness beyond that of most of the congenitally deaf possessing sight. He delights in the study of history and geography, but in mathematics his mind works slowly. He takes a great interest in all that is going on in the world about him, and is always eager for information. He has acquired the art of caning chairs to a degree equal to securing a comfortable self-support. He is generally cheerful and happy, but occasionally a sense of his blindness — a result of his growing intelligence — comes over him, and for a time he is very discontented and rebellious in his feel-

ings ; but at such times an appeal to his faith and a reminder of his heavenly Father's love and wisdom will generally restore him to a better state of mind. He is quick to see a joke and enjoys it to the full, but he indignantly resents any ill treatment. For eleven years he has been a very interesting member of our household, and he will be greatly missed now that he has finished his school course.

#### THE CLARKE SCHOOL FOR THE DEAF, NORTHAMPTON.

Miss CAROLINE A. YALE, *Principal*.

Number of Massachusetts beneficiaries during the school year 1896-97, . . .	126
Number admitted from Massachusetts during the year, . . . . .	21
Number in school from Massachusetts at the present time, . . . . .	127

Franklin Carter, president of the corporation, makes the following report, under date of Nov. 3, 1897 : —

The Clarke School for the Deaf continues its work from year to year with no great change. A small but pretty uniform growth in the number of pupils is scarcely noted even within the school, and makes little impression on the outside world. The number of pupils enrolled during the past year was 159. The least number actually in attendance was 154, which is 8 more than the largest number at any point of the previous year. Of these, 120 were from the State of Massachusetts, and their tuition and board were paid by this Commonwealth. The State of Vermont had 8 pupils and New Hampshire 10 in the school. The expenses of 9 pupils, coming from as many different States, were paid by their relatives. There has been one boy from Syria in the school during the year for whom no payment has been made. It was understood at the time of his reception that he was to have the advantages of the school without payment. It was hoped by the missionary, Rev. George A. Ford of Sidon, Syria, who secured his admission, that he might become intelligent enough to be useful ultimately, even if indirectly, in helping to the establishment of a school for mutes in Syria.

The facility with which deaf children acquire speech varies as the facility varies with which other children acquire other knowledge. Perhaps it would be more correct to say that there is a greater difference, because the obstacles for one congenitally deaf are very great ; while, on the other hand, there are those who acquire speech more easily, having had hearing for two, three, four or even more years. Each additional year of hearing for a child before deafness comes seems to make the path back to speech easier. Even among those whose deafness is of equal duration there is very great difference in the power of acquisition.

The numbers in the primary, intermediate and grammar departments were during the year nearly equal, and the number in each was about 50.

The graduation exercises in June, when a class of 4 received diplomas, were extremely interesting. Preceding these an hour was spent by friends of the school in visiting the class rooms of the different departments. The exercises in the assembly hall were opened by prayer by the Rev. Paul Van Dyke. An address was made by the president of the corporation on the German, Samuel Heinecke, who was the first to gather deaf children into a home and teach them speech. This was in Eppendorf, near Hamburg, in 1774, only four years after the Abbé de l'Épée began to teach the sign language to the deaf in his school in Paris. This address was followed by the presentation of diplomas. A statement was then made by Miss Yale, the principal of the school, in regard to the present activities of the class graduated from the school in 1895. From this statement it became known that two of the graduates of that class are fitting in one of the Cambridge high schools and another at the Brown and Nichols school for Harvard University, and that one of the two is nearly or quite at the head of his class.

Surely such a result of itself fully justifies the loving thought which for more than one hundred years has been given by individuals and governments to the teaching of speech to deaf children. That such an attainment has been reached by any graduate of this school cannot fail to stir in the hearts of all those connected with it, and, indeed, in the heart of every true philanthropist, lively emotions of thankfulness and joy.

The cost of each pupil in the school the past year has been \$282. The amount paid by the Commonwealth for each pupil is \$200, which is \$40 less than the amount paid by the State of Pennsylvania for each of its pupils at Mt. Airy and \$60 less than the amount paid by New York for each of its pupils at Rochester. If we consider the large difference between the annual cost of each pupil and the amount paid by the State and the greater appropriation of other States for these unfortunate pupils, it does not seem unreasonable to ask that the State should provide all text-books needed for use in this school, in accordance with the usage of towns in providing text-books for the public schools. The amount annually needed would probably not exceed \$2 a pupil, making a total of, say, \$300.

In closing this brief statement the writer would call attention to the accompanying report of the principal, and express the great satisfaction of the corporators of the school that Miss Yale is still carrying on with undiminished wisdom and vigor her arduous and successful labors for these limited children. This year has completed the

twenty-seventh of her service in the school and the eleventh of her occupancy of the most important office in its management.

From Miss Yale's report to the board of corporators of the school, the following selection is made:—

The number of new pupils entered during the year was twenty-one, ranging in age from five to twenty-four years. All but three of the new pupils entered the lowest grade of the primary department. Of the eighteen entering this grade, one had acquired speech before becoming deaf, but had lost it; two had acquired through partial hearing a small amount of very imperfect language; two had been under previous instruction in the Sarah Fuller Home; while thirteen had no knowledge of spoken or written language, and varied greatly in intellectual ability. Three of these little ones proved to be of too imperfect mental power to be retained in the school, and were therefore, with the advice of the committee on instruction, dismissed at the close of the year. Two of the three were but slightly deaf, and would seem to be quite as properly taught in a school where instruction is given through the hearing, as is the case in the ordinary schools for feeble-minded children.

. . . . .  
In our primary department a much closer connection has, during the last three years, been established between kindergarten occupations and nature work, thus broadening perceptibly the child's horizon of thought. This is the direct result of employing in our primary department trained kindergartners who have carefully considered what these methods could do for children past the kindergarten age and in many ways past kindergarten conditions, but without the knowledge of language with which the kindergarten for normal children begins its work. Too great caution cannot be used in adapting to the use of defective children methods devised for normal children.

The ability to read, that is, to get thought pictures directly from the printed page, is a matter of vital importance to any child, but pre-eminently so in the case of a deaf child. The past year the effort has been made to begin work toward this end in the primary classes of the second grade. Story charts prepared for deaf children who have been learning English only a year must of necessity be exceedingly limited in their vocabulary and in the number of constructions used, but the mental process required for their comprehension must be analagous to the reading process in higher grades; and surely, if we can begin to habituate the child to this process at an earlier date than we have done heretofore, we shall secure gain for him in many ways.

. . . . .



A matter of great interest to us is the work being done by some of our recent graduates now attending schools for hearing young men and women. One graduated from the Lawrence high school in June, and this fall enters the School of Technology in Boston. Two others are in their last year in the Cambridge high school and one in the Brown-Nichols school. These three have already taken part of their examinations for entrance into the Lawrence Scientific School. Another young man has begun his third year in the School of Mines in Columbia. A graduate of a later class is in Colby Academy in New Hampshire. The standing of these students is high, — in some cases marvellously high, — and the general effect of association with those not handicapped like themselves is proving in every way most beneficial to them and most satisfactory to their friends. These cases seem the more worthy of note, in that, with a single exception, these young men have never heard. A number of girls have also pursued with profit further courses of study in ordinary schools.

. . . . .

A matter of interest to all who have the welfare of the deaf at heart was the formation in July last, at Milwaukee, of a section of the National Educational Association, to be known as a “Department for the education of classes requiring special methods of instruction.” We welcome this step as one bringing teachers of special classes into closer contact with the general body of teachers of the country.

The growth of the oral method in this country has recently been evidenced by the establishment of additional day schools under this method, and the opening of oral departments in several schools where only a single oral class has previously existed. In the Wisconsin school one half of the teachers employed now have charge of oral classes.

The school feels itself especially honored in the acceptance by Dr. Hall of a place on your Board. We rejoice that so eminent an educator as he should find time for another interest added to so many, and we hope for practical advice and suggestion for our work from him.

HORACE MANN SCHOOL FOR THE DEAF, BOSTON.

MISS SARAH FULLER, *Principal*.

Number of Massachusetts beneficiaries during the school year 1896-97, . . . . .	122
Number admitted during the year, . . . . .	22
Number of Massachusetts beneficiaries in the school Nov. 1, 1897, . . . . .	109

This school is one of the public schools of Boston. It is under the immediate charge of a committee of the Boston school board, — Elizabeth C. Keller, Chairman, Charles Fleischer and

Frank E. Bateman. The following report is submitted by this committee :—

The committee on the Horace Mann School herewith submit their annual report, as follows :—

The school opened Sept. 8, 1896, with 102 pupils, — 51 girls and 51 boys. It closed June 24, 1897, with 112 pupils, — 56 boys and 56 girls. Of this number, 80 were residents of the city of Boston, and 30 were from towns in the vicinity. At the close of the school year, in June, 5 pupils — 3 girls and 2 boys — were graduated, and received well-merited diplomas from the committee, in behalf of the Boston school board. This is the second class to graduate in the history of the school. This class showed great proficiency in speech reading, facility in articulation, and as thorough mental training as pupils of the same grade in other schools.

The sloyd department is now a permanent and valuable method of instruction in this school, and is artistic and practical in its results. Twenty-five boys and three girls have received such instruction during the year. Mechanical drawing is an important feature of this work, as well as the use of tools. All the pupils, excepting those of the first year, have made drawings of models before reproducing them. This year, for the first time, wood-turning was begun, three pupils receiving instruction in the second half-year, with one lesson each week. Special attention has been given to the work of making original designs. From simple drawings of their own the pupils were allowed to make original models. Nearly all in this department made some gift for home friends for the holidays. This branch of instruction not only develops the pupils' mental powers, but also tends to bring the school work and home life into close relation.

During the school year the sewing classes were taught in accordance with the prescribed course, with very satisfactory results. The pupils in the various grades mastered stitching and finished the articles allotted to each year. Those in the primary grades were allowed to make their first models; the intermediate grades, specimens of underwear; the more advanced pupils made and fitted their own dresses, using the dressmaker's chart. The use of the sewing machine was taught when proficiency had been reached in all hand-sewing.

The printing department remains the same important branch of the curriculum as in the past. It has become a permanent and useful method of practical instruction. This subject possesses a peculiar fascination in all its details for the average child; hence there is no part of the work void of helpful interest from the very beginning. The work of the year was similar in kind to that of the past. There were two classes of beginners and one advanced class. The practi-

cal value of the printing department to this school is evident, when it is considered that children in the primary grades may, by this means, see the printed form of everything they study or talk about in class work. Thus a great deal of material is needed, — little lesson slips; an occasional story; school notices to be taken home; a little play written for the children, or some choice selections in prose or verse, many of which are printed by the pupils themselves under the instruction of one of the teachers.

The committee would urge the need of an art department in the Horace Mann School. There can be no question of its importance for those who cannot hear. A small beginning was made in this direction, with the approval of the committee, during the months of April and May of this year. Instruction was given in drawing, and there was some study of form and color under a special teacher. The element of art in public school instruction is now fully recognized as an essential part of a child's education, — not the study of art in the abstract sense, but its practical use in the way of decoration, and the acquirement of a true, helpful love of the beautiful in life. Children should be taught good drawing and how to appreciate the principles of form and color. There has been organized lately "The Public School Art League of Boston." Its object is to promote the adornment of schoolrooms and the cultivation of art in schools. This association was formed by those deeply interested in the care and extension of our public schools, and who realize the necessity of this part of a child's culture. Under the inspiration of this new society, it is to be hoped that the Horace Mann School will obtain its merited share of decorative art, and a well-equipped department. The special teacher of art studies made the following observations in her report at the close of the year: "The work done in the few lessons in design which I gave at the Horace Mann School was much better than I had anticipated. These children are naturally keen observers, and some of the drawings were made with an accuracy that was quite astonishing. They took great delight in the work, and carried it beyond school hours. The study of drawing means the ability to see and to observe. It makes one able to find beauty everywhere, and an interest in every object. It enlarges a child's knowledge, and increases its pleasure in every direction. To these children bereft of hearing it is one of the unrestricted pleasures of life. I cannot too strongly advise the study of drawing in this school."

The committee gratefully acknowledge the gift of two hundred dollars from Mrs. John McCandlish for the purchase of books for the school library. This generous donation is the direct result of the influence of the Boston Parents' Education Association. There was

also a gift from Mr. John McCandlish of one hundred and twenty-five dollars, towards a memorial tablet to Francis Green, the first man in this country to urge the need of schools for teaching deaf children by the oral method. Dr. Alexander Graham Bell has given fifty dollars for the same purpose. Mr. S. D. Warren has again kindly remembered the school with the sum of one hundred dollars to defray the expenses of printing. We would also acknowledge other gifts in small sums. These were used to pay expenses of pupils visiting places of historic interest, in connection with class work. Other friends have remembered the school, especially the printing work. The school cabinet of minerals has been carefully rearranged and classified. This collection of specimens is quite large and valuable, and is the result of gifts made to the school by many friends.

The committee desire to place upon record their appreciation of the good work that continues to be done in this school from year to year. There is a general improvement evident in every department. The course of study is well systematized. The indefatigable work of the principal is ably sustained by an efficient corps of teachers. The work of this school must be done with more than ordinary skill, fidelity and patience, if the usual results in public instruction are to follow. That these results are attained with a marked degree of excellence is due mainly to those very qualifications in the character of the teachers of which we speak. The thorough equipment of the Horace Mann School, for the comfort and welfare of its pupils, is also an element of its power for good, of which the citizens of Boston may be justly proud, and to which we cordially bear testimony.

#### SARAH FULLER HOME FOR LITTLE CHILDREN WHO CANNOT HEAR.

Miss ELIZA L. CLARK, *Matron and Principal.*

Number of Massachusetts beneficiaries during the school year of 1896-97,	. . .	11
Number withdrawn during the year,	. . . . .	3
Number admitted during the year,	. . . . .	3
Number of Massachusetts beneficiaries at the present time,	. . . . .	11

From the report of Anna M. Bennett for the executive committee of the Sarah Fuller Home the following extracts are made:—

In offering its ninth report, the executive committee of the Sarah Fuller Home makes note of 15 children who have been its inmates during the past year. Since last June 3 children have been admitted to the home and 3 have left it, 1 of these going to the Horace Mann School, 2 of them into the Clarke School at Northampton. . . .

Notwithstanding the interruptions caused by illness and convalescence, the year's work of education has been unusually good, and the results from the special training are very gratifying; in the last report we did not overestimate the gain which the children would receive from the new method of the lessons in articulation and language. Although the new course of instruction has been short and the lessons comparatively few, an improvement is marked in the pupils' facility in acquiring words and ideas, as also in their skill in making use of what they have gained.

In consideration of many requests from parents that their children should be allowed to make a longer stay at home than the usual two days' vacation, it was decided that the children should go to their own homes for two weeks in August, and that during the children's absence the teachers and assistants should have a vacation. The plan was carried out, and approved by the success of the experiment.

Through the kindness and liberality of the friends of the Sarah Fuller Home, the mortgage of \$2,500 upon the home property has been discharged.

For all the gifts during the year, to many friends, the executive committee here makes grateful acknowledgment. Among the favors received should be named especially the gift from Mr. Edmund Dwight, of sums severally of the face value of \$1,000 and of \$2,000, both sums given to be added to the principal of the Ellen R. Dwight scholarship; also the gift from Mrs. Sarah A. Matchett of the sum of \$500, and the gift from Mr. Edward L. Robinson of the sum of \$334.40, the proceeds of a lecture given in Association hall.

With these acknowledgments of services rendered and other favors to the home there should be remembered gratefully its long obligation to Dr. John L. Coffin, who since the founding of the home has been its resident physician and faithful friend. In leaving Medford he has resigned the office, in which Dr. Kennedy for a few weeks has served very acceptably at no slight personal inconvenience.

It may be interesting to the friends of the home to know definitely what are the aim, the plan and method of work, in the new lessons in speech-making referred to in this report. At Miss Fuller's request, one of the teachers explains them as follows:—

“My plan in working with the pupils at the Sarah Fuller Home has been to train the voices to an agreeable quality, and also to help in the development of the elements of speech,—in short, to produce good voices and natural articulation; besides this, to give the children a knowledge of the vowel and consonant representatives, so that they may be able to find out for themselves the pronunciation of words. The plan has been carried out so far as the infrequency of the lessons has permitted. A marked improvement has been noticed,

to a greater or less degree, in every case, both in the quality of tone and in the *ease* with which speech is used. This gain has been due in great part to the careful, painstaking manner in which Miss Clark has carried out the ideas and suggestions given at each lesson."

Hardly can it be said too often that the "acceptable time" for training these children — the season in which art can vie with nature in developing them — is at the age when other children are learning to speak; the time when they are all attention, and when, because they are unconscious, there is the greatest ease in imitation. We have Miss Fuller's assurance that, when once the power of speaking is acquired, parents find it comparatively easy to continue the speech of a little child, merely by encouraging the practice of speaking, and by enlarging his vocabulary, — all this often without his conscious effort.

It is not too much to say to parents and friends of these children, and others like them limited in their means of acquiring language, that each season offers some gain in methods of helping them; some new hope of better things to be done in the next year's work. With each little success, with every fresh encouragement, we remember the founder of the Sarah Fuller Home, and recall words of hers with which it is good and pleasant to close this report: —

"May I ask that you all will dwell on the benefit our deaf children are receiving . . . and *not* yourselves think of them as very unfortunate nor lead others to do so. . . . Teach those deprived of one sense that the other senses are only called upon to do more work; that the deficiency can be made up; and that the very act of overcoming the obstacle in itself is a very great gain in power, and strengthens all the moral body."

#### PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

M. ANAGNOS, *Director*.

In the records of the Perkins Institution at the close of the year, Sept. 30, 1897, the names of 264 blind persons are enrolled. Of these, 188 are in the parent school at South Boston, 64 in the kindergarten at Jamaica Plain and 12 in the workshop for the adult blind. The number connected with the school may be thus divided: —

Pupils in the boys' department,	. . . . .	95
Pupils in the girls' department,	. . . . .	80
Children in the kindergarten,	. . . . .	64
Teachers and employés,	. . . . .	10
Domestics,	. . . . .	3

Beneficiaries of Massachusetts at beginning of year, . . . .	145
Beneficiaries of Massachusetts admitted during year, . . . .	19
Beneficiaries of Massachusetts discharged during year, . . . .	17
Beneficiaries of Massachusetts at present time (Sept. 30, 1897), . . .	147

The work of the institution during the past year has progressed steadily along the same lines which it has followed in the past. These lines are threefold and parallel, for it is believed that literary work, music and manual training make equally strong claims upon the time, and are equally important factors, in the training of the pupils.

Of the enlargement of the operations of the school the trustees speak as follows in their last annual report to the corporation : —

The past year has been a notable one in the history of the institution. Thanks to the generosity of several of the friends and benefactors of the blind, means were placed at our disposal which enabled us to enlarge the field of operations of the school and to extend its work along broader lines, so that in the future the diplomas issued by the Perkins Institution will mean more than they have done in the past, for they will serve as passports to effect the admission of their possessors to the academic and scientific halls of the leading colleges and universities of New England.

Of the curriculum of the school the director reports as follows to the trustees : —

The course of study is broad in its scope, progressive in its character and practical in its aims. It is founded on a liberal basis, and includes such branches as are calculated both to meet the general necessities and to supply the special wants of the blind.

A thorough training of the body and perfect control of its muscles, constant and systematic exercise of the hands, a full and harmonious development of the mental faculties, careful nurture of the moral and of the æsthetic nature, methodical cultivation of the native talents and aptitudes, — these are more than needful in the case of our pupils, — they are indispensable, and therefore receive due attention.

In the literary department there exists a spirit of harmony and co-operation between teachers and pupils, and all work together in the good fellowship and mutual interest which prove a strong incentive to advance in scholarship. Thus the

enthusiasm and conscientious endeavor of the teacher kindle an answering ambition in the pupil, which manifests itself in the attentive ear, the eager question, and a general appreciation of his privileges no less than of his duties.

The methods of instruction pursued in this department are thus briefly stated by Mr. Anagnos in his report to the trustees : —

The work of the school has been conducted, not with a view of helping the learner to gain a certain amount of information about a variety of subjects and of fixing a few ideas in his mind, but for the purpose of enabling him to develop and exercise his active powers, to observe and reason, to investigate and discover, to think and express his thoughts in simple language, to compare and classify facts, to form accurate conceptions and judgments, and to utilize the knowledge thus acquired by applying it to the intelligent performance of his daily duties. In this wise the perceptive and reflective faculties are quickened, the spirit of rational inquiry is fostered, the imagination is both cultivated and regulated, the creative instinct is encouraged, promptness and obedience are taught, and the pupils, instead of passively being led to the storehouses of knowledge and urged to take it at second hand, become self-directing and able to judge and act for themselves, and to arrive at correct conclusions by their own logical deductions.

For music the blind show a great love and a natural aptitude. Some, indeed, wish to devote themselves to this branch of study alone, and feel time spent in other employments to be wasted. But such a desire must be curbed, since uniform development demands that no one division of the three-fold scheme of education should be allowed to supersede the others until a solid foundation has been laid. Some very good results are shown from the year's work, which has embraced instruction on the pianoforte, organ, violin, clarinet and brass instruments, in vocal culture and in harmony and the theory of music.

Of this department the director gives the following account in his report to the trustees : —

Our music department is so complete in all its appointments as to constitute by itself a sort of conservatory on a small scale. The branches taught therein include the pianoforte, the pipe organ, the violin, the clarinet and several other instruments ; harmony, theory



and the history of music. Moreover, nearly all our pupils receive instruction in the rudiments of vocal music, while a large number pay special attention to it.

The department of manual training has been well adapted to supplement and expand the course of instruction and to add to mental power through acquired dexterity and muscular control by the will. Opportunity to become proficient in manual occupations is afforded those who show special ability for work of this kind.

Great attention is paid at this institution to the sloyd system, the results of which are thus described by Mr. Anagnos: —

Thus the advantages derived from this system of manual training are numerous and far-reaching. The various manipulations which it employs have a direct and vitalizing effect upon the process of thinking or cerebration, and at the same time afford to the pupils the means of expressing their thoughts by the work of their fingers as well as by oral speech and writing. The hands are so thoroughly trained thereby that they acquire a great degree of skill and elasticity, and become the interpreters of the mandates of the will and the executors of the decisions of the brain. This organ, aided by them in the course of its development, grows stronger and more commanding, and finally assumes consciously the mastery and the prerogative of its regal authority over the corporeal organization.

The printing house has met the requirements, not only of the institution itself, but also of widely scattered students and readers. New editions of several of the books printed in raised letters in previous years by the Howe Memorial Press have been necessitated by the demand for them. In addition to these the following new books have been issued: Cooper's "The Pilot," Hawthorne's "Twice Told Tales," Irving's "The Alhambra," St. Pierre's "Paul and Virginia," and Emilie Poulsson's "Through the Farmyard Gate."

At the end of the school year 10 pupils — 6 boys and 4 girls — were transferred from the kindergarten to the parent school at South Boston; but the places thus left vacant were quickly filled, since the number of applications is always in excess of the number that can be accommodated. Under these circumstances it has often seemed necessary to send some children to

the higher school to whom another year or two at the kindergarten would have been profitable. To obviate this necessity a new building for boys is in process of erection, by means of which it is hoped to establish a more extended primary course, and thus to secure a firmer foundation on which to build more advanced work.

To the three doubly afflicted children whose progress friends far and near are watching with interest, the year has been a fruitful one.

In the case of Edith Thomas—in some respects the most gifted of the three—it has meant steady unfolding of her nature, expansion of mental power and uniform development of character on every side, to which end her faithful and loving teachers have bent their energies, that there might be no unequal cultivation of one quality at the expense of the others. Edith preserves unchanged her absolute honesty, her sturdy independence and her steadfast perseverance, through which the daily lessons, even those in subjects which she finds “naturally uninteresting” to her, are mastered and contribute to her mental growth.

Elizabeth Robin has completed her first year at South Boston. Her ambition and interest have been aroused by work among companions of her own age, and her record for the year shows a very satisfactory advance in scholarship. She has proved her ability not only to hold her place on an equal footing with her classmates, but in some instances to surpass them. Her eager desire to talk is a great aid in overcoming the difficulties of articulation, which might well seem insurmountable were it not for the care and patience of the teacher and the painstaking effort of the pupil. Her achievements in the past give promise of what may yet be accomplished by her in the future.

Tom Stringer, in utter unconsciousness of the compassion which he arouses, has passed a happy, care-free year, which has been attended by the normal growth in mind and body that any healthy, natural boy might exhibit. He excels in arithmetic and in manual work, in which, under the personal supervision of Mr. Gustaf Larsson, he has had careful training. He shows a cheerful readiness to perform the daily tasks required of him in all save oral speech, the advantages of which

he cannot yet appreciate. But in spite of this he is almost always willing to make a brave struggle to master the intricacies of articulation.

Tom's affectionate heart responds to the sweet, sunny, uplifting influences which are about him; but he is himself the centre of love and interest in scores of hearts throughout the land, many of them child hearts, which rejoice in his happiness and sympathize in his triumphs and defeats, and in large or small degree contribute to give him the educational privileges of which he is making good and intelligent use.

#### MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

WALTER E. FERNALD, M.D., *Superintendent.*

#### *Statistics.*

	Male.	Female.	Total.
Number present Sept. 30, 1896, . . . . .	252	173	425
Admitted during the year, . . . . .	92	33	125
Whole number present, . . . . .	344	206	550
Discharged, . . . . .	23	11	34
Died, . . . . .	8	4	12
Number present Sept. 30, 1897, . . . . .	313	191	504
Average number present, . . . . .	261	177	438
School cases admitted, . . . . .	64	18	82
Custodial cases admitted, . . . . .	28	15	43
Private pupils now present, . . . . .	17	13	30
Massachusetts school beneficiaries, . . . . .	131	49	180
Cases supported by income of invested funds, . . . . .	10	5	15
Custodial cases supported by the State, . . . . .	58	40	98
Custodial cases supported by cities and towns, . . . . .	76	80	156
Beneficiaries of other New England States, . . . . .	21	4	25
Applications for admission during the year, . . . . .	—	—	192

#### TERMS OF ADMISSION.

Persons applying for admission of children must fill out and return certain blanks, copies of which will be forwarded to any address on application to the superintendent.

Candidates for admission must be over six years of age. The best age for training and instruction is between eight and twelve.

This institution is not intended for epileptic or insane children, or for those who are incurably hydrocephalic or paralytic.

None such will be retained, to the exclusion of more improvable subjects.

Any suitable person may be admitted, on such terms as the trustees may determine, according to the responsibilities and difficulties in each case. Payments are to be made quarterly, in advance, or sufficient surety therefor given. Private pupils will be required to observe strictly all the rules and regulations of the institution.

The children of indigent parents in Massachusetts may secure gratuitous admission in accordance with the law.

The post-office address of the school is Waverley.

Clematis Brook is the nearest railroad station.

For further particulars, apply in person or by letter to the superintendent.

### TRUSTEES' REPORT.

MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED,  
WALTHAM, Oct. 14, 1897.

*To the Corporation, His Excellency the Governor, the Legislature, the State Board of Education and the State Board of Lunacy and Charity.*

The trustees have the honor to submit their annual report for the year ending Sept. 30, 1897.

There are now in the school 504 inmates of all descriptions. Of these, 181 are supported by the Commonwealth in the school department and 105 in the custodial department. There are in the school department 15 inmates who are supported by the income from invested funds, the same being legacies to the school and increase from such legacies. There are 165 inmates of the custodial department supported by cities and towns. There are 30 inmates who pay either the whole or a portion of the cost of their support, and there are 27 beneficiaries of other States for whose instruction and care the school receives \$300 each per year. Against the 105 custodial cases now paid for by the State, the number last year was only 37, — an increase of 68. But the charge to the State for these 68 cases is for the most part temporary. It will be collected by the State from cities and towns when the settlements of the cases have been determined, and in the future will be collected by the school directly from the cities and towns. Since the latter part of June of the present year there have been accommodations for 525 inmates, against proper accommodations prior to that date for 410 inmates; although for the last four years, by crowding our dormitories to the utmost, we have

taken care of 425 inmates. Thus we have now about 20 vacancies ; for we are in the process of filling up the school to the increased limit provided by the erection and completion of the first of the new buildings authorized by the resolve of the Legislature approved April 27, 1896. This building was ready for occupation June 24, 1897.

The trustees in their annual report for the year ending Sept. 30, 1896, had suggested that it might become expedient to purchase in the early future a large tract of wild land for a permanent home for feeble-minded persons who have first received the benefits and advantages of a more strictly educational and training department to be maintained at the present location in Waltham ; and the Legislature of last winter, by a resolve approved May 6, 1897, had so far favored the suggested plan as to appropriate the sum of \$20,000 for the purchase of additional land for the use of the school. The passage of this resolve was regarded as one of the milestones in our progress. Henceforth we could work with a definite plan, in which numbers do not appal. The future of the great mass of feeble-minded persons within the Commonwealth who must be cared for at public cost was assured. But it was felt by the trustees to be due to the traditions of the school and the intentions of its founders that the improvable feeble-minded children of the Commonwealth should not be neglected. As has been frequently stated in these reports, and as was dwelt upon at length in our last annual report, we are often unable to return to their homes children that have continued in the school department until they have passed the school age, whereas it has always been the theory of the school that improvable children should be sent home after spending a few years in our schoolrooms. In the beginning the school was only for improvable. But of late improvable feeble-minded children on application have found no vacant place. The only remedy was the transfer of some of the oldest children from the school department to the custodial department ; and an opportunity to do this was offered when the new building was ready for use. Accordingly at that time 50 children were so transferred, and the admission papers sent out to applicants were in great measure confined to cases that upon preliminary investigation had been adjudged to be good school cases.

This accounts for the large number of custodial cases at this date supported as stated above by the Commonwealth, and also for the fact that, although many school children have been admitted, there has been but little increase in the number in the school department over last year. That the entire school is not quite full may be partly owing to the fact that the parents of feeble-minded children with intelligence enough to be benefited by school instruction finally gave up their little ones with reluctance. In some instances, where admis-

sion has long been sought with great importunity, when finally the permit is obtained advantage is not taken of it for months. But the custodial applicant appears without delay upon permission granted.

The current expenses for the year have amounted to \$76,233.74, or \$3.33 per week for each inmate.

The second building authorized under the resolve approved April 27, 1896, is in course of construction, and will be ready for occupancy early in 1898. It is built upon land obtained by exchange of detached land on the north side of the Trapelo road. This gives to the school 94 acres in one lot, and, as stated last year, the completion of the building will give to the school a full complement of buildings corresponding to the acreage. There will be accommodations for 600 inmates.

The estimated cost of the second building is \$25,000. The estimated cost of the first building was \$35,000, and it was completed within the estimate.

The building completed in June last is devoted to adult custodial male cases. The one in process of construction will be occupied mostly by adult females, and more especially by those who do work of various kinds in the different departments.

The health of the school has been remarkably good, with the exception of a visitation of diphtheria of a mild type. It was brought to the school by a newly admitted applicant, but, as appears in the superintendent's report, the former dread of this disease is a thing of the past.

The increase in buildings exhausts our present boiler or heating capacity, and leaves us without reserve in case of accident. We shall petition the Legislature for an appropriation of \$3,000 for a new boiler and additional electric plant.

A full account of the work of the school in detail will be found in the accompanying report of the superintendent.

FRANCIS J. BARNES,  
ELIOT C. CLARKE,  
ELIZABETH E. COOLIDGE,  
JOHN CUMMINGS,  
J. S. DAMRELL,  
SAMUEL ELIOT,  
SAMUEL HOAR,  
W. W. SWAN,  
GEO. G. TARBELL,  
ERSKINE WARDEN,  
F. G. WHEATLEY,

*Trustees.*

From the report of Dr. Fernald, the superintendent, to the trustees the following extract is made:—

The general health of the inmates has been as good as usual. Nearly every one of the newly admitted children has shown marked physical improvement within a few weeks of admission. Two cases of scarlet fever occurred during the year. We also had a number of cases of diphtheria among the young feeble cases in the west building, brought to the school by a boy from an infected family who came down with the disease within a few days of his admission. One very feeble child died at the very onset of the sickness, but the other cases all made a rapid and complete recovery. The fortunate result in these cases was undoubtedly due to the prompt administration of antitoxine, which almost invariably caused a rapid disappearance of the symptoms of the disease. In this connection I wish to express my gratitude to the State Board of Health for gratuitously supplying the school with the antitoxine made under the supervision of that Board.

The completion of the new north building has enabled us to make a much-needed reclassification and separation of the male inmates, according to age and mental and physical condition. To the north building, June 24, were transferred the adult male custodial cases. Many of these cases are excitable, untidy and destructive, some of them semi-insane, and all obviously unfit for association with the younger children. The north building, with its large, sunny, well-ventilated rooms and ample and convenient toilet facilities, has enabled us to give this class of inmates much better care than has been possible hitherto; and by this regrading we have been able to remove all of these custodial cases from the boys' dormitory, which is now occupied only by the younger, improvable school cases. The small boys of the lower grade, some of them partially paralyzed or otherwise helpless, and many requiring what is practically hospital care, live at the west building. At the farm house we continue to house some of the quiet, reliable workers of adult age. Thus our male inmates are separated into four well-defined groups, located in four different buildings. These four groups are still further graded into twelve wards or classes, according to age and degree of intelligence.

The new building for the adult female custodial cases will be ready for occupancy early in 1898. The inmates and employees in this building will be supplied with food from the kitchen of the adjacent west building. A new dining-room, 20 by 30, for the employees of the two buildings, with four additional sleeping rooms for employees in its second story, has been added to the kitchen wing of the west

building. This addition will cost about \$2,500, to be charged to current expense account. The new girls' building will be heated from the present heating plant of the west building, the capacity of which is sufficient for the purpose.

The newly acquired land adjoining these two buildings provides a splendid shady recreation ground.

The current expenses for the year have amounted to \$76,233.74, or \$3.33 per week for each inmate.

In selecting cases for admission from the large number of applications on file, as far as possible preference was given to young improvable cases of the school grade. Of the 125 cases admitted during the year, 82 were of the school age and grade and 58 were under ten years of age. Among the custodial cases were 7 females over sixteen years of age, and 8 helpless children, unable to walk or to help themselves.

The large amount of work accomplished by our large boys deserves mention. In addition to the daily routine work of a large institution, our boys have done practically all the unskilled labor incident to the excavation of the basements of the two new buildings, the digging and filling for the trenches for the sewer, water and steam pipes, as well as the grading around the buildings. Mr. Knight's class of painters did all of the painting and varnishing for the inside and outside of the new north building, including the beautifully varnished inside finish. These boys also painted the inside walls of the school-house and gymnasium, and expect to do all the painting in the new girls' building.

The past year has been one of the busiest in the history of the school. The building operations, the admission and care of a large number of new children, the reclassification of the male inmates and organization of a new department, have involved many extra duties for the officers and employees. In spite of the extra work, the general standard of care and training has been maintained, and the results have been as satisfactory as in former years.

#### HISTORY OF STATE SCHOLARSHIPS.

*The Scholarship Policy of the State.* — Massachusetts, unlike many States of the Union, has no State college or university to crown her public school system, and to which graduates of her high schools may be admitted without payment of tuition. The last report of the United States Commissioner of Education shows that there are thirty or more State universities that receive annual grants of money from their respective States,



in addition to such income as they get from productive funds and from tuition when tuition is charged. These grants in 1895-96, for instance, amounted to more than \$2,000,000.

While Massachusetts has occasionally aided her colleges in their times of need with direct money grants, she has inclined, on the whole, to the policy of encouraging and aiding such meritorious students from the public schools as are in need of help to attend them. The Board of Education has recently made an inquiry to ascertain whether any scholarship obligations assumed by the colleges in consideration of past grants from the State had been suffered to lapse. In connection with this inquiry, the history of State scholarships has been looked up by Mr. C. B. Tillinghast, the State librarian and clerk and treasurer of the Board, to whom the secretary is indebted for the following account:—

*Scholarships to provide Teachers for the High Schools.*—For the purpose of fitting teachers for the high schools, the Legislature, in 1853, with the approval and aid of the Board of Education, established forty-eight scholarships in the colleges of the State, with the annual allowance of one hundred dollars each (see chapter 193, Acts of 1853). The candidates for these scholarships were to be recommended by the school committees, and appointed by the Board of Education and the senator from the district the candidate represented.

This law appears to have been from the beginning indifferently successful in the accomplishment of the end sought. It was found that scholars who received the aid were in many cases poorly prepared to enter college, and frequently were compelled to vacate the scholarship. In order to remedy this difficulty, an act was passed in 1864, limiting the candidates to those who had been one year in college and ranked in scholarship among the first half of their class (see chapter 218, Acts of 1864).

Before the advantages of this amended plan had been to any extent tested, the Legislature repealed all provisions for State scholarships (see chapter 210, Acts of 1866). The committee on education, in recommending the repeal, states that the manner of appointment made locality and not merit the qualification of success. It was found that not more than ten or twelve of all who had received such scholarships had been engaged in

teaching or had even made any report to the Board (see House Document 162, 1866).

At the time this law was originally enacted, the chartered colleges in the State were Harvard, Amherst, Williams and Tufts.

*Scholarships in Amherst, Tufts and Williams.* — In 1859 the Board of Education recommended an increase of the school fund to the sum of \$3,000,000, and this recommendation was endorsed by Governor Banks. At the same time a strong effort was being made to secure State aid toward the establishment of the Museum of Comparative Zoölogy. It was at first proposed to issue State scrip of an amount to give \$100,000 to the Museum of Comparative Zoölogy, \$50,000 to Tufts College and \$25,000 to Wesleyan Academy. In addition to the proposed increase of the school fund, bills for the foregoing purposes were recommended by the committee on education and passed the Senate. Subsequently bills were introduced to appropriate \$25,000 to Williams College and \$25,000 to Amherst (see Senate Documents 83 and 103, 1859).

If these bills are favorably received, the committee states, “the higher seminaries will be placed beyond embarrassment, and made to irradiate the land with the brightest light of science and learning”.

When these bills reached the House they were consolidated into one, and the payment was provided for out of the proceeds of the sales of Back Bay lands in Boston. All the gifts were conditioned upon the raising by subscription of an equal amount in aid of each institution benefited. The gifts to Williams, Tufts and Amherst were made with the further condition that each of these institutions should maintain three free scholarships. It was provided that these free scholarships should be under the control of the Board of Education, and “may be filled and managed in such mode as now is or may hereafter be provided for the regulation of all free scholarships established by the Commonwealth” (see chapter 154, Acts of 1859).

The Board of Education, March 13, 1861, voted that the subject of the free scholarships required to be established in Williams, Tufts and Amherst, by chapter 154, Acts of 1859, be referred to a committee, to report thereon at a future meeting. The committee consisted of Governor Andrew, Hon.

George S. Boutwell and Hon. Davis H. Mason (see manuscript records of the Board of Education, Vol. 1, page 232).

In the twenty-fifth annual report of the Board of Education, presented in 1862, occurs the following :—

The Board will be called upon, at an early day, to make arrangements for filling three free scholarships to be established in Williams College, three in Amherst College and three in Tufts College, in conformity to “An act to increase the school fund, and to grant aid to the Museum of Comparative Zoölogy, Tufts, Williams and Amherst colleges, and the Wesleyan Academy at Wilbraham, out of the proceeds of sales of Back Bay lands,” approved April 2, 1859.

It does not appear from the records that the committee above referred to ever made a report, and there is no further reference to these scholarships, either in the records of the Board of Education or in its annual reports.

A reference to the catalogues of the colleges discloses the following information :—

In the annual catalogue of Amherst College for 1866–67 it is stated that there are three State scholarships, as conditioned by the Legislature of Massachusetts. In the catalogue of the next year the value of these scholarships is given as \$45 each. In the last catalogue of the college the three State scholarships are given as yielding \$45 each annually. The amount was apparently fixed upon the basis of the college tuition at the time the grant was made, which was then \$45. Now the general term bill of Amherst College is \$110.

The Tufts College catalogue for 1863–64 states that, in accordance with the requisition of the State, three scholarships had been established, the income of each, \$50, is awarded to meritorious students needing assistance. The tuition in Tufts at that time was \$35 per year. The current catalogue of Tufts College states that there are three State scholarships, established in accordance with a resolve of the Commonwealth, the yearly income of which is \$100 each, and that they are awarded annually by the trustees. The tuition at the present time in Tufts College is \$100.

In Williams College catalogue for 1870–71 under the endowments are mentioned three State scholarships, \$3,750. In the

catalogue for 1880–81, and subsequent catalogues to this day, the endowment of the State scholarships is changed to \$1,500. The tuition in Williams College in 1870–71 was \$75, and to-day it is \$105.

*Scholarships in the Lawrence Scientific School.* — Harvard University maintains scholarships in the Lawrence Scientific School, not exceeding eight at any one time, of the annual value of \$150, for the benefit of graduates of reputable normal schools in the United States. The incumbents are originally appointed for one year, upon the recommendation of the principals of the schools from which they have been severally graduated. These appointments may be annually renewed. The last annual catalogue of Harvard University shows that there were seven graduates of normal schools in the Scientific School, two of whom were from Massachusetts.

*Scholarships in the Worcester Polytechnic Institute.* — As a condition of a grant of \$50,000 made to the Worcester County Free Institute of Industrial Science by chapter 57 of the Resolves of 1869, that institution was required to maintain twenty free scholarships, to be selected by the Board of Education from the different counties of the Commonwealth, excepting Worcester County.

Chapter 107 of the Acts of 1896 provides for an annual appropriation to the Worcester Polytechnic Institute of \$3,000, in consideration of which, and of a resolve of 1869, before cited, the Worcester Polytechnic Institute is now required to maintain forty free scholarships, one for each senatorial district, to be selected by the Board of Education from the pupils of the public schools of Massachusetts.

*Scholarships in the Massachusetts Institute of Technology.* — In consideration of a grant of \$100,000 made to the Massachusetts Institute of Technology by chapter 105 of the Resolves of 1887, the Institute was required to establish and maintain twenty free scholarships. Chapter 70 of the Resolves of 1895 provided that there should be paid annually for the term of six years the sum of \$2,000, to be expended for ten free scholarships.

Chapter 310 of the Acts of 1896 repealed the above provisions, and provided in lieu thereof that \$4,000 should be paid annually to the institute, and that the institute, in consideration

of that and previous grants, should maintain forty free scholarships, to be awarded by the Board of Education to pupils in the public schools of Massachusetts.

*Rules governing the Award of Scholarships.* — The following rules governing the award of scholarships by the Board of Education were recently adopted : —

1. Applications for State scholarships must be made not later than August 15 in each year, in writing, in the form prescribed by the Board of Education, upon blanks to be furnished by the secretary of the Board.

2. In case of a vacancy occurring in the scholarship assigned to any senatorial district without any properly qualified applicant appearing from that district, the vacancy shall be filled from the list of applicants registered in the office of the secretary of the State Board of Education.

3. In the case of scholarships assigned to senatorial districts from which no applicants shall appear, preference will be given, other things being equal, to applicants from districts which have at the time no representation upon the list of State scholars.

4. A high standard of personal scholarship shall be insisted upon, as a condition of receiving and retaining the benefits of the State scholarships.

5. No assignment of a State scholarship to any individual student shall hold for more than one year without his reappointment. A preference, other things being equal, will be given to the student who has previously held the appointment; but this preference will not be sufficient to secure the reappointment of any student who has not maintained a thoroughly respectable standing in his studies, and whose character and deportment are not, in all respects, unexceptionable.

6. Applicants for original appointment to State scholarships must enclose in their applications a certificate of admission to the institute, free from "conditions."

7. Persons desiring information concerning the course of study, times of examination and requirements of admission, should address the secretary of the Institute of Technology, Boston, or the secretary of the Worcester Polytechnic Institute, Worcester.

8. Persons desiring information regarding the State scholarships established under these regulations, and regarding the terms and conditions upon which they are to be filled, should address the SECRETARY OF THE STATE BOARD OF EDUCATION, BOSTON, who will also furnish blank forms for application.

## THE EDUCATIONAL MUSEUM.

The educational museum was opened in April, 1897. It occupies but one of the four rooms originally assigned to it. The pressing need of committee rooms by the Legislature makes it very doubtful whether the remaining three rooms can be released for museum purposes. The material on exhibition, though small in quantity, is interesting in kind. It comprises the bound volumes of pupils' work that was sent to Chicago, a variety of pupils' exercises from noted German schools, a collection of French and German text-books, sundry valuable educational books, and other things of interest to the specialist. The museum is also saving educational matter of a transient character, — matter not likely to reach the public libraries, but likely to serve the future investigator. The secretary visited, during the summer of 1897, the Musée Pédagogique in Paris. Its fine pedagogical library, its pamphlets or bulletins on educational themes, its ways of bringing teachers into touch with its resources, — features like these admirably justify its existence. They seem to be more thoroughly alive in France than we are to the present and possible values of an educational museum. In one respect, however, the museum was disappointing. Its endeavor to show, by rooms actually equipped, what it conceives to be typical shops, laboratories, lecture rooms, seems to defeat itself. Everywhere in the strictly modern schoolhouses of Massachusetts better specimens of well-equipped rooms abound. So many are the changes in the subjects and methods of instruction, so rapid is the progress in improving rooms, equipment and appliances to meet these changes, that any reproduction of the highest attainment in such things, either in France or in our own country, speedily becomes ancient history. It loses its value for present guidance, while its value as history, in view of its cost and its heavy demands for space, is at least questionable. The museum — its name is a misleading one — has its living side as well as its dead, its inspiration for the present as well as its illumination of the past. It can render its best service where it can be most conveniently utilized for study, — where teachers, present and prospective, are most likely to come in

touch with its wealth. Its presence in the State House must necessarily keep it cramped and subdued. Should the city of Boston, as many of its citizens, including some members of its school committee, have advised, ask the State to take charge of its normal school, and should the State, coming into such control, deem it expedient to erect the new building which the school so urgently needs, a capital opportunity would open of placing there the library of the educational museum; of exhibiting there, where pupils are studying such things, the best modern appliances for teaching; of making the rooms and laboratories that are in actual use there typical of the sort of rooms which the public schools should have; and of arranging there for those halls, lecture rooms and offices that would serve the double purpose of answering, on the one hand, the needs of the normal school, and, on the other, the needs of the various teachers' organizations that might be permitted to hold their occasional meetings there, and whose work, instead of interrupting a normal school, would reinforce and stimulate it.

This outlook is, of course, in the nature of a vision, but should the vision become a reality, several educational aspirations would be realized, with mutual profit to the teachers and the schools.

Meanwhile, let the present museum hold the narrow foothold it has gained and await further development. Some of the material in the unopened hundred boxes still stored in the basement of the Boston Latin School might be distributed, with reservation of the right to reassemble it, to the State normal schools or otherwise disposed of. It is not unlikely that the Paris Exposition of 1900 will bring into possession of the State another valuable lot of school material.

If we do not save these records of school attainment while they are passing through our hands, the loss will be irreparable, and those that come after us may justly complain of our improvidence. The committee of Harvard overseers on the study of English at the college has recently expressed its regret that no records of the English work done at the college fifty years ago are extant. It has taken pains that a similar complaint shall not be made fifty years hence.

## THE STATE EXAMINATION AND CERTIFICATION OF TEACHERS.

The situation with reference to the State examination of teachers continues unchanged, except that what was deemed impracticable in executing the plan when the employees of the Board were more numerous than to-day is still further removed from practicability, in that this force has been reduced. For a full account of this situation, see pages 126-128 of the fifty-ninth report, also pages 134 and 135 of the sixtieth. There is only one course that comports with the magnitude of the school interests involved and with a dignified and thorough treatment of them by the State, and that is, to insist in the near future on some minimum of professional training for every new teacher, and to organize an examination board, with a director of examinations or supervisor of teachers' qualifications, — whatever the best title may be, — on such a basis as to insure wise and constant attention to this most vital and critical part of our system, — that of securing good teachers.

## PHYSIOLOGY AND HYGIENE.

*Temperance Instruction in the Schools.* — To an inquiry made of all the towns whether they were observing the provisions of the law relating to temperance instruction in the schools, 337 said "yes," 1 said "no," and 15 gave no reply. It is quite possible that the frank "no" of the single town that gave this answer does not mean so serious an indifference to the law as the perfunctory "yes" from some of the remaining towns. Physiology and hygiene are universally taught; the text-books that are used, probably without exception, point out the dangers and evils of using alcoholic liquors as a beverage; the teachers are probably a unit in assenting to any general proposition that temperance should be sedulously encouraged in the schools; they are probably a unit in believing that, whatever methods of scientific study are urged or used, the moral persuasiveness of the teacher should supplement them. It is probably true that the teachers, as a body, are as far advanced in methods of scientific instruction as are the text-books that guide them. All this means that, in the aggregate, a heavy text-book and moral pressure throughout the State is brought to bear upon children in the interests of pure, temperate and healthful living. So



far the trend is right and the State's temperance policy justified. There is a strong feeling, on the other hand, not only among educational directors but also among the more thoughtful teachers, that it is not enough to give informational physiology and hygiene,—that is done already; that it is not enough to exert a general moral influence in behalf of hygienic and temperate living,—that is done already; but that the principles of hygiene and of temperance should be so vitalized and brought home to the child as to arouse his deep personal interest in them, to build him up into the practice of what is preached, to fix his habits for good, and thus to strengthen in him the physical foundation for a nobler and more successful living than is otherwise possible. Right here are many problems,—no more numerous, perhaps, than in other branches of instruction, but certainly of greater novelty, probably of greater difficulty, because they relate to conduct as well as to knowledge, and, therefore, a little further from solution than they would now be had they been longer under discussion.

*Physical Culture in the Schools.*—The whole subject of physical culture, involving, as it does, good air, good light, good food, good exercise, good bodily positions, right use of the eye and the ear, freedom from overwork, worry and sundry abuses, and so vitally bound up, as it is, with the intellectual and moral welfare of the individual, the integrity and happiness of the family and the ultimate welfare of the State, merits with every school committee and in every school the most earnest attention. Pale faces, narrow chests, enfeebled circulation, nervous irritability, a general lack of tone,—these are not necessary prices but the worst hindrances of a sound education.

Whether such defects are the products of mismanaged schools, as they sometimes probably are, or of conditions outside of the school, as they are far more likely to be, they must not be neglected in the hygienic instruction of the school. Nor have communities a right to ignore the teacher's health by making her work under the excessive strain of more pupils than she can teach or of worse sanitary conditions than she can endure. There is a blessed contagion in the strong, hopeful, cheery ways of perfect health in the teacher that no school can afford to miss.

## THE ATTENDANCE AND TRUANCY LAWS.

The attendance laws of the State have received special study during the past three years. The attendance measure submitted to the Legislature of 1898 has been referred to the judges of the several courts, to school committees, superintendents of schools and truant officers throughout the State, to county commissioners and officers of truant schools, and to numerous friends of education and philanthropy besides. Large numbers of these persons have furnished valuable comments and criticisms upon the measure. No human foresight can fully anticipate the possibilities of the future, no human insight fully take in the complexities of the present, in a sense to provide for them all satisfactorily either in this or in any other measure. The measure is as carefully drawn up, as progressive, as humane as its many critics have been able to make it. It is a codification to some extent of the old ; but it also marks an advance in important new particulars, some of which are as follows : —

1. It makes the minimum schooling eight months, instead of six.

2. It drops the compulsory age from eight to seven.

3. It requires the pupil's attendance, unless excused, all of the time during the compulsory years.

4. It sweeps away by-laws, — those old hindrances to the execution of the law, not to say mysteries to persons unacquainted with their origin, growth and decadence.

5. It removes that bar to its execution in small towns, — the tax of two dollars a week for the board of the truant in the county school.

6. It provides for a State attendance officer to co-operate with, and, upon occasion, to supplement the local attendance officers.

7. It makes the truant schools State instead of county schools, calls them parental schools and not truant, and favors, in general, a better classification and treatment of their pupils.

8. In general, without going into other details, it may be said that the measure is framed in the interest of a more thorough execution of the attendance policy of the State, and on the theory that it is wiser to spend a little more money and energy in securing the steady schooling of the young than a

great deal more money and energy in guarding against the paupers, the hoodlums and the criminals that are recruited far more freely from the unschooled, the ignorant and the idle than from the schooled, the intelligent and the industrious.

The favorable action of the Legislature is needed to bring our school attendance policy up to the level of existing public sentiment.

#### SUMMARY OF RECOMMENDATIONS.

*New Recommendations very Few.* — Most of the recommendations in any report of the Board or of its secretary are renewals of recommendations made in previous reports. As a rule, it takes a long time for a recommendation to commend itself to favorable action. If it is at all radical, a decade, or, as in the case of abolishing the district system, a half a century may pass before final and full favor is extended to it. The grander recommendations of the secretary's report, with a single exception, are old. They are as follows: —

1. That in the near future some minimum of professional training be required for every new teacher, with the necessary organization to insure the wise and complete execution of the policy.

2. That the supervision of schools by superintendents be made the universal and permanent policy of the State.

3. That the new attendance measure, as presented in a report made to the Legislature in compliance with its order, be adopted in substance as presented.

The Board has in former years made the first two of the foregoing recommendations. The fact that it makes for the present year the third recommendation only does not imply any abandonment of its old positions.

#### CONCLUSION.

*Are We always Progressing?* — It is not an uncommon thing for school committees to say through a long succession of years that each year the schools have advanced upon the record of the preceding year. It seems to be overlooked that such noticeable increments of gain cannot but yield, as the decades go by, an ultimate aggregate of gain that must be astonishing, if true.

Nature's method is not that of uninterrupted advance. There are retreating as well as advancing waves. Development has its negative values as well as its positive. And so it becomes us to be on our guard against losses as well as in good spirits over our gains.

Are we enriching courses of study, enlarging the child's horizon, exciting in him what the psychologist calls a many-sided interest? Let us not make the mistake, on the other hand, of catering to that interest on too many sides, of suffering it to keep on unduly in its butterfly ways, and so of failing to promote intensity and persistency of interest in single lines. Are we grouping pupils successfully for instruction, and so avoiding waste of energy and extravagance of cost? Let us avoid the attendant danger of subordinating the individual to numbers, — of spurring him unduly if he is slow or retarding him unduly if he is quick. Is the public doing more and more for the children at school? Let us see to it that there shall not grow up an accompanying disposition to depend more and more on the school and less and less on the home. The intelligent co-operation of school and home, not the substitution of either for the other, is what the welfare of the child demands. And so, in whatever school policy the swinging pendulum tends to swing too far, it should be the constant endeavor of the wise to bring that swing once more within the arc of the golden mean.

A glimpse of the discussions and ferments over our Massachusetts school conditions is given thus by a philosophical on-looker, the present United States Commissioner of Education: —

There is scarcely a feature of school instruction or school discipline and management that has not been differentiated in Massachusetts at some epoch within the two hundred years of its history. The adoption of a course of study and the fixing of the amount of instruction to be given in each branch, and the time when it is best to begin it; the relative position of the disciplinary and the information studies; the use and disuse of corporal punishment; the education of girls; written examinations; the grading of schools; the relation of principal and assistant teachers; professional instruction in normal schools; religious instruction; unsectarian moral instruction and secular instruction; theocratic or ecclesiastical government and purely secular

control, or the union and separation of Church and State ; government by centralized power, and then by distribution of power to districts, realizing the extreme of local self-government, and then the recovery of central authority ; public high schools and private academies ; co-education and separate education of the sexes ; educational support by tuition fees, rate bills, general taxation and local taxation ; general and local supervision by committees and by experts ; educational associations and teachers' institutes ; large and small school buildings and their division into rooms, their heating, ventilation and lighting ; evening schools, kindergartens, industrial art instruction, free textbooks, — in fact, almost all educational problems have been agitated at one time or another in Massachusetts.

It has often happened that some one feature or another has been taken up by a neighboring State and more perfectly developed than in Massachusetts, or in the inception of some important movement other States have anticipated Massachusetts ; but no other State has, on the whole, so rich and profitable an experience.

In studying the records of this State one is impressed by the fact that every new movement has run the gauntlet of fierce and bitter opposition before adoption. The ability of the conservative party has always been conspicuous, and the friends of the new measure have been forced to exert all their strength, and to eliminate one after another the objectional features discovered in advance by their enemies. To this fact is due the success of so many of the reforms and improvements that have proceeded from this State. The fire of criticism has purified the gold from the dross in a large measure already before the stage of practical experiment has begun. In reviewing this long record of bitter quarrels over new measures that have now become old and venerable because of their good results in all parts of the nation, we are apt to become impatient and blame too severely the conservative party in Massachusetts. We forget that the opposition helped to perfect the theory of the reform, and did much to make it a real advance instead of a mere change from one imperfect method to another.\*

In view of all this seething discussion, with its decisions, its reversals of decisions and its overturns of reversals, it is idle to affirm an unbroken annual progress all along the line. No large view, however, can be taken that does not force one to conclude that from decade to decade, if not from year to year,

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\* From the preface, written by W. T. Harris, LL.D., to "The Evolution of the Massachusetts Public School System," by George H. Martin, A.M., International Education Series of D. Appleton & Co., New York.

there has been a gratifying gain in many notable ways. The following lines of progress may be selected as typical ones : —

1. An improvement in external school conditions, — in buildings, furniture, sanitary arrangements, text-books and illustrative material for teaching.

2. The enrichment of courses of study, so that schools are becoming more interesting and profitable.

3. A growing insight into the philosophy of teaching, — an insight to which educational journals and books, teachers' meetings, public discussions, summer schools, normal schools, teaching departments in colleges and researches of experts are contributing as never before.

4. A finer art in governing schools, and, therefore, in training pupils to a better citizenship.

With all the “ifs” and “buts” that are inevitable to their vast and complex interests, the public schools continue to be, as they have been in the past, an inestimable blessing to the children of the people and the State's supreme reliance for the strengthening of its civil foundations. They are entitled, therefore, to the sturdiest local support; and when local endeavor, at its best, falls short of reputable standards, to that helpful co-operation which the State, in no false spirit of charity to others, but in the spirit, rather, of prudent loyalty to itself, should freely and cheerfully give.

FRANK A. HILL,

*Secretary.*

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# FINANCIAL STATEMENTS.

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# INCOME OF MASSACHUSETTS SCHOOL FUND. 1897.

Cash on hand Jan. 1, 1897, . . . . .	\$86,968 65
Income for 1897, . . . . .	189,808 71
	<hr/> \$276,777 36
Paid cities and towns in 1897, . . . . .	91,086 49
Paid educational expenses in 1897, . . . . .	94,136 34
Paid interest on securities purchased, . . . . .	1,536 02
	<hr/> \$186,758 85
Cash on hand Dec. 31, 1897, . . . . .	90,018 51
From which there is to be paid to cities and towns in 1898, . . . . .	90,018 51
The Massachusetts school fund amounted, Dec. 31, 1897, to . . . . .	4,070,548 14

The condition in detail of the school fund appears from the following report of the commissioners : —

TREASURY DEPARTMENT, BOSTON, Jan. 24, 1898.

Hon. JOHN L. BATES, *Speaker of the House of Representatives.*

SIR : — Under the provisions of section 2 of chapter 43 of the Public Statutes, requiring the commissioners in charge of the Massachusetts school fund to report annually the condition and income of the fund, the undersigned respectfully submit the following : —

Amount of the fund Dec. 31, 1896, . . . . .	\$3,970,548 14
Increase of the fund during the year, under the pro- visions of chapter 90, Resolves of 1894, . . . . .	100,000 00
	<hr/> \$4,070,548 14

Of this amount, \$67,706.64 was in cash uninvested, and the following is a schedule of the securities in the fund : —

Adams bonds, . . . . .	\$25,000 00
Amesbury bonds, . . . . .	70,000 00
Amherst notes, . . . . .	9,000 00
Auburn, Me., bonds, . . . . .	13,000 00
Avon bonds, . . . . .	19,000 00
Berkshire County notes, . . . . .	10,000 00
Beverly bonds, . . . . .	2,000 00

Beverly note, . . . . .	\$25,000 00
Billerica notes, . . . . .	2,000 00
Boston & Albany Railroad bonds, . . . . .	1,500,000 00
Boston bond, . . . . .	1,000 00
Braintree bonds, . . . . .	37,000 00
Braintree notes, . . . . .	18,600 00
Bristol County notes, . . . . .	40,000 00
Brockton bonds, . . . . .	159,100 00
Brookfield notes, . . . . .	4,700 00
Brookline bonds, . . . . .	10,000 00
Cambridge bonds, . . . . .	6,000 00
Chester fire district notes, . . . . .	9,000 00
Chicopee bonds, . . . . .	14,000 00
Clinton bonds, . . . . .	59,000 00
Clinton notes, . . . . .	7,500 00
Cohasset notes, . . . . .	20,400 00
Cottage City notes, . . . . .	1,500 00
Danvers bonds, . . . . .	2,000 00
Duxbury notes, . . . . .	33,000 00
Easthampton notes, . . . . .	37,000 00
Everett bonds, . . . . .	53,000 00
Fall River bonds, . . . . .	129,000 00
Fitchburg bonds, . . . . .	13,000 00
Fitchburg Railroad bonds, . . . . .	275,000 00
Framingham notes, . . . . .	20,000 00
Great Barrington bonds, . . . . .	22,000 00
Hanover notes, . . . . .	4,500 00
Haverhill bonds, . . . . .	8,000 00
Holbrook bonds, . . . . .	25,000 00
Holbrook notes, . . . . .	4,000 00
Holyoke bond, . . . . .	4,000 00
Hull bonds, . . . . .	4,000 00
Hull notes, . . . . .	36,591 50
Huntington notes, . . . . .	5,500 00
Leicester water supply bonds, . . . . .	25,000 00
Leominster bonds, . . . . .	20,000 00
Leominster notes, . . . . .	35,400 00
Lewiston bond, . . . . .	500 00
Lynn bonds, . . . . .	233,000 00
Malden bonds, . . . . .	25,000 00
Mansfield bonds, . . . . .	3,500 00
Marlborough bond, . . . . .	1,000 00
Maynard bonds, . . . . .	16,000 00
Maynard notes, . . . . .	27,000 00
Medford notes, . . . . .	41,500 00
Medway notes, . . . . .	1,400 00
Meriden, Conn., bonds, . . . . .	12,000 00
Methuen notes, . . . . .	8,000 00
Middleborough bonds, . . . . .	4,000 00

Millis bond, . . . . .	\$1,000 00
Needham bonds, . . . . .	20,000 00
New Hampshire bonds, . . . . .	2,000 00
New Bedford bonds, . . . . .	13,000 00
New Britain, Conn., bonds, . . . . .	65,000 00
Newburyport bonds, . . . . .	28,000 00
Newton bonds, . . . . .	7,000 00
North Adams notes, . . . . .	25,000 00
North Attleborough bonds, . . . . .	97,000 00
North Attleborough fire district bonds, . . . . .	15,000 00
North Brookfield notes, . . . . .	10,000 00
Orange bonds, . . . . .	15,000 00
Provincetown bonds, . . . . .	52,000 00
Quincy bonds, . . . . .	61,000 00
Quincy notes, . . . . .	27,000 00
Randolph bonds, . . . . .	10,000 00
Reading bonds, . . . . .	10,000 00
Rehoboth notes, . . . . .	5,000 00
Revere notes, . . . . .	10,400 00
Saugus notes, . . . . .	11,350 00
Scituate notes, . . . . .	10,000 00
Sharon bond, . . . . .	5,000 00
Somerset notes, . . . . .	15,000 00
Somerville bonds, . . . . .	12,000 00
South Hadley notes, . . . . .	9,600 00
South Hadley fire district notes, . . . . .	44,500 00
Stoughton bonds, . . . . .	51,000 00
Sturbridge notes, . . . . .	3,000 00
Swampscott notes, . . . . .	9,000 00
Turners Falls fire district bonds, . . . . .	10,000 00
Uxbridge bond, . . . . .	27,000 00
Waltham bond, . . . . .	2,000 00
Warren notes, . . . . .	2,700 00
Watertown bonds, . . . . .	5,000 00
Watertown notes, . . . . .	10,000 00
Waterville, Me., bonds, . . . . .	20,000 00
Webster bonds, . . . . .	23,000 00
Westborough notes, . . . . .	2,800 00
Westfield bonds, . . . . .	5,500 00
Westford notes, . . . . .	4,500 00
West Newbury notes, . . . . .	800 00
West Springfield bonds, . . . . .	13,500 00
West Springfield notes, . . . . .	5,000 00
Weymouth notes, . . . . .	14,000 00
Whitman bond, . . . . .	5,000 00
Winthrop notes, . . . . .	9,500 00
Woonsocket bonds, . . . . .	7,000 00

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\$4,002,841 50

The following shows the amount of the principal of the school fund as it stood at the close of each of the past seven school years, and the income for the same years.

YEAR.	Principal.	Income.
1891, . . . . .	\$3,655,761 85	\$138,625 68
1892, . . . . .	3,655,761 85	167,229 55
1893, . . . . .	3,670,548 14	167,258 23
1894, . . . . .	3,770,548 14	167,210 54
1895, . . . . .	3,870,548 14	172,729 65
1896, . . . . .	3,970,548 14	175,165 64
1897, . . . . .	4,070,548 14	189,808 71

The effect of the increase in the fund by the annual addition authorized by chapter 90 of the Resolves of the year 1894, which has been paid in to the amount of \$400,000, will be readily seen in the increase of income for 1897.

FRANK A. HILL,

E. P. SHAW,

*Commissioners of the Massachusetts School Fund.*

#### AMOUNT EXPENDED FOR INSTRUCTION OF DEAF CHILDREN DURING THE YEAR.

##### *Paid Clarke School.*

124 pupils for quarter commencing Jan. 1, 1897, . . .	\$6,420 42	
125 pupils for quarter commencing April 1, 1897, . . .	6,290 71	
125 pupils for quarter commencing July 1, 1897, . . .	6,250 00	
127 pupils for quarter commencing Oct. 1, 1897, . . .	6,210 15	
		\$25,171 28

##### *Paid Horace Mann School.*

112 pupils, Feb. 1 to July 1, 1897, . . . . .	\$5,865 88	
109 pupils, Sept. 1, 1897, to Feb. 1, 1898, . . . . .	5,547 54	
Transportation of pupils, . . . . .	1,950 51	
		13,363 93

##### *Paid American School.*

65 pupils for quarter commencing Dec. 1, 1896, . . .	\$3,250 00	
67 pupils for quarter commencing March 1, 1897, . . .	3,400 00	
65 pupils for quarter commencing June 1, 1897, . . .	3,250 00	
64 pupils for quarter commencing Sept. 1, 1897, . . .	3,200 00	
Clothing furnished beneficiaries to July 1, 1897, . . .	425 26	
		13,525 26

*Paid Sarah Fuller Home.*

7 pupils to Jan. 1, 1897, . . . . .	\$306 25	
8 pupils to April 1, 1897, . . . . .	350 00	
8 pupils to July 1, 1897, . . . . .	350 00	
9 pupils to Oct 1, 1897, . . . . .	346 40	
	<hr/>	\$1,352 65
		<hr/>
		\$53,413 12
Appropriation for 1897, . . . . .		55,000 00
		<hr/>
Balance unexpended, . . . . .		\$1,586 88

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CORRECTION.—On page 215 the Massachusetts School for the Feeble-minded, Waltham, is called a public school of the State. This is not strictly correct. The school is, indeed, one in which the State has great interest, to the purchase of whose lands and the erection of whose buildings the State has voted large sums of money, to whose annual support it regularly contributes, in whose control, by means of State representation on its board of trustees, it shares, and in which it provides by law for a limited amount of free tuition for feeble-minded children. Although these relations of the State to the school give it a certain public character, it is strictly a private corporation.

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

DR.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.

CR.

1897.		1897.	
Expended for Bridgewater Normal School, . . . . .	\$37,699 00	Appropriation for 1897, . . . . .	\$187,444 00
Expended for Fitchburg Normal School, . . . . .	32,030 96	Received from city of Fitchburg, . . . . .	9,832 81
Expended for Framingham Normal School, . . . . .	22,230 00		
Expended for Hyannis Normal School, . . . . .	9,123 96		
Expended for Lowell Normal School, . . . . .	11,999 12		
Expended for North Adams Normal School, . . . . .	13,797 58		
Expended for Salem Normal School, . . . . .	26,870 77		
Expended for Westfield Normal School, . . . . .	22,992 50		
Expended for Worcester Normal School, . . . . .	20,524 55		
Balance unexpended, . . . . .		\$197,258 44	
		18 37	
		<u>\$197,276 81</u>	
Bridgewater Normal School:—			
Salary of principal, . . . . .	\$3,000 00	Appropriation apportioned by the Board, . . . . .	\$37,699 00
Salaries of assistants, . . . . .	18,507 88		
Repairs and furniture, including boarding hall, . . . . .	3,312 96		

Janitor service, . . . . .	1,190 00				
Watchman, . . . . .	699 97				
Clerk, . . . . .	600 00				
Engineer and fireman, . . . . .	1,280 00				
Fuel, . . . . .	1,360 84				
Printing, . . . . .	312 97				
Advertising, . . . . .	129 05				
Apparatus, . . . . .	315 27				
Lights, . . . . .	74 25				
Water, . . . . .	55 24				
Industrial laboratory, . . . . .	144 54				
Books, . . . . .	647 34				
School of observation, . . . . .	5,975 04				
Extra clerical assistance, . . . . .	93 65				
		\$37,699 00			
Fitchburg Normal School:—					
Salary of principal, . . . . .	\$3,000 00			Appropriation apportioned by the	22,200 00
Salaries of assistants, . . . . .	19,852 70			Board, . . . . .	9,832 81
Repairs and furnishings, . . . . .	1,557 85			Received from city of Fitchburg, . . . . .	
Printing, . . . . .	352 60				
Fuel, . . . . .	1,500 97				
Stationery, . . . . .	872 19				
Advertising, . . . . .	93 93				
Books, . . . . .	1,748 66				
Janitor, . . . . .	704 54				
Engineer, . . . . .	900 00				
Apparatus, . . . . .	116 50				
Water, . . . . .	96 50				
Clerical assistance, . . . . .	146 55				
Lighting, . . . . .	322 02				
<i>Amounts carried forward,</i> . . . . .	\$31,265 01	\$37,699 00		<i>Amount carried forward,</i> . . . . .	\$69,731 81

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.  
APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Continued.*

Dr.	1897.	1897.	Cr.
	<i>Amounts brought forward, .</i>	<i>Amount brought forward, .</i>	\$69,731 81
	Fitchburg Normal School — <i>Con.</i>		
	Ice, . . . . .	30 21	
	Telephone, . . . . .	100 50	
	Lectures, . . . . .	415 47	
	Dedication and other expenses, .	219 77	
		<hr/>	
	Balance unexpended, . . . . .	\$32,030 96	
		1 85	
		<hr/>	
	Framingham Normal School:—	32,032 81	
	Salary of principal, . . . . .	\$3,000 00	
	Salaries of assistants, . . . . .	11,345 18	
	Janitor service, . . . . .	999 96	
	Watchman and engineer, . . . . .	1,460 25	
	Accountant, . . . . .	699 96	
	Repairs and furniture, . . . . .	759 46	
	Fuel, . . . . .	2,619 60	
	Printing, . . . . .	63 84	
	Apparatus, . . . . .	253 57	
	Advertising, . . . . .	116 40	
	Books, . . . . .	341 82	
	Stationery, . . . . .	64 14	
	Laboratory, . . . . .	150 00	
	Water, . . . . .	173 71	
	Telephone, . . . . .	95 05	
	Gymnasium and other expenses,	87 06	
		<hr/>	
		22,230 00	
			22,230 00

Appropriation apportioned by the Board, . . . . .





## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR.	APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — <i>Continued.</i>				CR.	
1897.	<i>Amounts brought forward,</i>	\$11,884 72	\$101,086 81	1897.	<i>Amount brought forward,</i>	\$113,086 81
	Lowell Normal School — <i>Con.</i>					
	Laboratory service, . . .	50 00				
	Travelling expenses, . . .	64 40				
		\$11,999 12				
	Balance unexpended, . . .	88	12,000 00			
	North Adams Normal School: —					
	Salary of principal, . . .	\$3,000 00				
	Salaries of assistants, . . .	4,604 24				
	Furnishings and fittings, . . .	1,237 19				
	Janitor service, . . .	600 00				
	Fuel, . . .	1,468 81				
	Apparatus, . . .	174 13				
	Printing, . . .	136 31				
	Stationery, . . .	252 95				
	Advertising, . . .	92 47				
	Books, . . .	1,009 20				
	Engineer and fireman, . . .	724 00				
	Telephone, . . .	158 64				
	Lectures, . . .	66 29				
	Clerical assistance, . . .	51 50				
	Music, . . .	15 00				
	Lighting, . . .	118 02				
	Travelling expenses, . . .	88 83				
		\$13,797 58				
	Balance unexpended, . . .	2 42	13,800 00			
					Appropriation apportioned by the Board, . . .	13,800 00



## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR.

## APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — Continued.

CR.

1897.	<i>Amounts brought forward,</i>	\$19,450 22	\$153,761 81	1897.	<i>Amount brought forward,</i>	\$176,751 81
	Westfield Normal School — <i>Con.</i>					
	Advertising, . . . . .	108 25				
	Books, . . . . .	981 81				
	Printing, . . . . .	396 75				
	Gas, . . . . .	55 26				
	Water, . . . . .	338 65				
	Boarding hall, . . . . .	1,297 60				
	Clerical assistance, . . . . .	164 72				
	Lectures, . . . . .	189 24				
	Balance unexpended, . . . . .	\$22,982 50				
		7 50				
			22,990 00			
	Worcester Normal School: —					
	Salary of principal, . . . . .	\$3,000 00				
	Salaries of assistants, . . . . .	11,499 53				
	Janitor service, . . . . .	702 88				
	Repairs and furniture, . . . . .	1,830 94				
	Fuel, . . . . .	1,046 95				
	Stationery, . . . . .	283 79				
	Printing, . . . . .	353 90				
	Apparatus, . . . . .	302 29				
	Books, . . . . .	1,108 89				
	Telephone, . . . . .	53 00				
	Ice, . . . . .	56 56				
					Appropriation apportioned by the Board, . . . . .	20,525 00

Lighting, . . . . .	48 30			
Water, . . . . .	87 53			
Music, . . . . .	50 00			
Kindergarten, . . . . .	99 99			
	<u>\$20,524 55</u>			
Balance unexpended, . . . . .	45	20,525 00		
		<u>\$197,276 81</u>		<u>\$197,276 81</u>

## APPROPRIATION FOR THE NORMAL ART SCHOOL.

1897.		1897.	Appropriation for 1897, . . . . .	\$19,780 00
Salary of principal, . . . . .	\$3,000 00			
Salaries of assistants, . . . . .	14,200 50			
Janitor service, . . . . .	800 01			
Repairs, . . . . .	17 66			
Fuel, . . . . .	856 50			
Lighting, . . . . .	120 17			
Water, . . . . .	42 00			
Advertising, . . . . .	121 43			
Printing, . . . . .	98 84			
Fireman, . . . . .	520 00	\$19,777 11		
		<u>2 89</u>		
Balance unexpended, . . . . .	.	<u>\$19,780 00</u>		<u>\$19,780 00</u>



Dec. 31,	Sandisfield, Somerset, Wareham, Westfield, Worcester, . . . Balance unexpended, . . .	\$1,962 79 37 21	\$2,000 00		\$2,000 00
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## APPROPRIATION FOR AID TO NORMAL PUPILS.

1897.	Amounts paid : — Bridgewater School, . . . Fitchburg School, . . . Framingham School, . . . Salem School, . . . Westfield School, . . . Worcester School, . . . Balance unexpended, . . .	\$630 00 78 75 204 75 283 25 771 75 31 50 2,000 00	1897.	Appropriation, . . . . .	\$4,000 00
Dec. 31,					\$4,000 00

## APPROPRIATION FOR INCIDENTAL EXPENSES

1897.	Amount expended as follows : — School registers and printing, . . . Stationery, . . . . . Postage, . . . . . Expressage, . . . . . Special assistance, . . . . . Books and binding, . . . . . Lantern slides, . . . . .	\$838 33 197 64 248 35 275 99 138 89 38 95 61 85	1897.	Appropriation for 1897, . . . . .	\$1,800 00
					\$1,800 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.  
APPROPRIATION FOR TRAVELLING EXPENSES OF MEMBERS OF THE BOARD.

DR.	CR.
1897.	1897.
Feb. 5, E. H. Capen, . . . . .	Appropriation, . . . . .
Mar. 1, E. H. Capen, . . . . .	
May 11, G. I. Aldrich, . . . . .	
June 8, M. B. Whitney, . . . . .	
16, Franklin Carter, . . . . .	
24, E. H. Capen, . . . . .	
28, J. D. Miller, . . . . .	
July 21, Geo. H. Conley, . . . . .	
Sept 11, Alice F. Palmer, . . . . .	
Dec. 4, Geo. I. Aldrich, . . . . .	
8, E. H. Capen, . . . . .	
22, Franklin Carter, . . . . .	
23, J. D. Miller, . . . . .	
23, Kate G. Wells, . . . . .	
E. B. Stoddard, . . . . .	
Geo. H. Conley, . . . . .	
31, Balance unexpended . . . . .	
	\$1,000 00
	\$1,000 00

APPROPRIATION FOR EDUCATIONAL MUSEUM.

1897.	1897.
Expended for —	Appropriation for 1897, . . . . .
Salary of curator, . . . . .	
Stationery and binding, . . . . .	
	\$500 00
	\$500 00

C. B. TILLINGHAST, *Treasurer.*



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## APPENDICES.

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A.

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REPORT OF JOHN T. PRINCE,  
AGENT OF THE BOARD.

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## REPORT.

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*To the Board of Education.*

During the past year there has been more than the usual number of calls upon my time for teachers' institutes and for local meetings of various kinds. By reason of this fact, together with the fact that the bounds of my district have been considerably extended, my knowledge of the condition of the schools through inspection is not as full or as extensive as it has been in former years; yet by personal interviews and correspondence with school officials and by short visits of inspection I have been able to acquaint myself with the educational conditions of nearly every town of the five counties.

One evidence of improvement, especially in the schools of country towns, is the marked increase of interest on the part of the people. This has been brought about largely by an increased number of parents' meetings and of special school exhibits, and in general by the improved practical turn which the schools have taken, largely through the agency of the district superintendents. As time goes on and opportunity is afforded to see the good results of continuous skilled supervision, the wisdom of the establishment of district supervision becomes more and more manifest. That there have been hindrances in the way of its full operation none will deny. It will be admitted even that in some cases the promises held out by the promoters of the plan have not been fulfilled, and yet its claims to universal adoption, in the judgment of those who have seen its operation under favorable conditions, are undoubted. The hindrances to its success, when such hindrances exist, do not lie in the plan itself, but in the opposition of the people to any appearance of a deprivation of local rights. This is shown in the outset through indifference or actual opposition to the plan of supervision by the election of

an inefficient person as superintendent. Sometimes when an efficient superintendent is elected, the opposition of the people or representatives of the people on the school committee renders his service of little value. Happily such opposition is rapidly passing away. In fact, in the five counties of my district there is at the present time little opposition which a thoroughly competent superintendent cannot overcome. I do not mean by this that there will be no opposition to competent superintendents. It is unreasonable to suppose that personal feeling will cease as a factor in the choice and continuance of a superintendent in office, so long as it is so prominent in the choice and continuance of teachers in their schools. In many country districts the opposition to teachers is of a purely personal kind. It is not argued that because such opposition exists the schools ought to be abolished. It is conceded by all that the schools should continue, even though some competent teachers fail to please their patrons. In the same way it may be said that a system of supervision which by eight years' trial has proved its helpfulness to the schools, is worthy of adoption by every town of the State which cannot support a superintendent of its own, even though a superintendent here and there should fail from any cause to meet the demands of his employers.

The only question is, whether the combination of towns, which is now optional, shall be compulsory. If the interests of the comparatively few towns which have not accepted the provisions of this act were alone involved, it would perhaps be as well to wait for them to vote for the measure, as they undoubtedly would in time; but there are the claims of other towns to be considered, whose votes to form a union have been inoperative because there were no towns near by with which they could join. The exact situation in my district will illustrate this point. Of the towns in my district mentioned in the last report of the Board of Education (pp. 91-94) as not having superintendents of schools, two (Acushnet and Chilmark) have during the past year come under supervision, leaving sixteen towns without a superintendent. Two of these (Hyde Park and Nantucket) have too high a valuation to receive aid from the State for supervision under the present law. Of the remaining fourteen towns, seven have accepted the provisions

of the act and are ready to unite in the formation of districts, leaving but seven towns in the five counties which would be affected by a compulsory law.

### COURSE OF STUDIES.

In a previous preliminary report upon A Course of Studies for Elementary Schools\* I discussed some features of the best courses in this and other countries for the purpose of reaching a standard of practice respecting the studies to be pursued and a proper allotment of time to be given them. The conclusions reached in that report were as follows:—

1. An eight years' course should be provided for all pupils whose age of entrance in school is six years, and for pupils who enter at five years of age there should be formed a sub-primary class, whose course is preparatory to the regular elementary course or is a means of connection between the elementary school and kindergarten whenever the kindergarten is made a part of the public school system.

2. An extension of the elementary school curriculum so as to include the elements of science, algebra, geometry, one foreign language and manual training is both wise and practicable; but these subjects should be concrete and practical, and be closely correlated with allied subjects that are ordinarily pursued in the elementary schools. The reading of standard authors should be begun in the third grade and be continued throughout the course to the extent of several books every year.

3. In the sub-primary class, or connecting class between the kindergarten and the first grade primary, a larger share of time should be given to observation lessons, games, weaving, paper cutting, etc., than is given in subsequent grades, while a comparatively short time should be given to reading, writing and number, the proportional allotments for this grade being approximately as follows: for physical exercises, games, manual training, etc., a little more than one third; for language, including reading, writing and composition, a little less than one third; for number, one sixteenth; for observation lessons, one fifth, and for story telling and memorizing of gems, one tenth.

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\* Sixtieth report of the Massachusetts Board of Education, pp. 437-480.

The formal language studies should occupy a larger proportion of time in the earlier grades of the regular elementary course than in the later grades; while mathematics should have a less prominent place in the lower grades than in the upper, the approximate proportion of time for formal language exercises being from two fifths to one fourth and for mathematics from one eighth to one fifth. The time allotted to elementary science or nature study should be at the beginning of the course about one eighth of the time, increasing in amount until in the middle grades it is one fifth of the time, and falling off in the last two grades to one sixth and one eighth of the time. History, including literature, biography, civil government and history proper, should occupy about as much time as science in the first six grades. In the two upper grades about one fourth of the time should be given to the history-literature group. In singing, drawing and manual training there should be but little difference in the proportion of time given in the various grades of the course, the approximate proportion of time being from one fourth to one fifth.

The last table of the report (Table XIV.) gives the percentages of time for each group of subjects. It is as follows:—

TABLE XIV. — *Showing the Approximate Percentage, in a Proposed Course of Studies, of the Entire Recitation Time of a Pupil or Group of Pupils spent in I. Language (including Reading, Writing, Spelling, Composition, English Grammar and a Foreign Language), II. Mathematics (including Arithmetic, Algebra, Geometry and Bookkeeping), III. Elementary Science (including Nature Study, Physiology, Hygiene and Geography), IV. History (including English Literature, Civil Government, Biography and History Proper), V. Miscellaneous Exercises (including Singing, Drawing and Manual Training).*

GROUPS OF STUDIES.	Sub- primary.	Grade 1.	Grade 2.	Grade 3.	Grade 4.	Grade 5.	Grade 6.	Grade 7.	Grade 8.
I. Language, . .	29.0	40.0	37.0	28.0	24.0	24.0	24.0	24.0	24.0
II. Mathematics, . .	6.0	12.0	12.0	15.0	16.0	16.0	16.0	16.0	20.0
III. Science, . .	20.0	12.0	12.0	15.0	20.0	20.0	20.0	16.0	12.0
IV. History, . .	10.0	12.0	15.0	20.0	20.0	20.0	20.0	24.0	24.0
V. Miscellaneous, . .	35.0*	24.0	24.0	22.0	20.0	20.0	20.0	20.0	20.0

\* Including physical exercises, games, manual training, form study, etc.



In a circular letter sent to upwards of two hundred leading teachers and superintendents, I asked, among other questions, what change, if any, they would propose for the grouping given in the above table. Few pronounced opinions were expressed in respect to time allotments. Some would give less time to science and history and others would give more; a few express a doubt as to the wisdom of reducing the time for mathematics so much, while others would go even further in the reduction. These and other opposing views lead me to believe that the percentages stated in the table are approximately near what should be given to the various groups of subjects in a model course.

As to the grouping of subjects, some differences of opinion appear. It should be said that the above division of subjects was made so that comparisons of present courses could be made with courses proposed in the report of the Committee of Ten and in the California reports. Other divisions might very properly be made, and for purposes of correlation would perhaps be preferred. Dr. Soldan, superintendent of the public schools of St. Louis, says that "English literature should be classed with 'language,' not with 'history.' The historical part of it is not prominent enough to classify it under history." This arrangement would agree substantially with that contained in the report of the Committee of Fifteen, which classifies the subjects as follows: —

I. Language, including reading, penmanship, spelling, literature and grammar.

II. Mathematics, including arithmetic, algebra and geometry.

III. Geography, including the elements of science as well as geography proper.

IV. History, including biography and civil government.

V. Miscellaneous, including drawing, singing, manual training and physical culture.

A rearrangement of Table XIV. so as to include literature in the language group would change the percentages in the first and fourth groups, as shown in the following: —

TABLE XV. — *Showing the Approximate Percentage, in a Proposed Course of Studies, of the Entire Recitation Time of a Pupil or Group of Pupils spent in I. Language (including Reading, Writing, Spelling, Composition, English Grammar and Literature and a Foreign Language), II. Mathematics (including Arithmetic, Algebra, Geometry and Bookkeeping), III. Elementary Science (including Nature Study, Physiology, Hygiene and Geography), IV. History (including Civil Government, Biography and History Proper), V. Miscellaneous Exercises (including Singing, Drawing and Manual Training).*

GROUPS OF STUDIES.	Sub- primary.	Grade 1.	Grade 2.	Grade 3.	Grade 4.	Grade 5.	Grade 6.	Grade 7.	Grade 8.
I. Language, . .	29.0	42.0	42.0	38.0	32.0	32.0	32.0	33.0	33.0
II. Mathematics, .	6.0	12.0	12.0	15.0	16.0	16.0	16.0	16.0	20.0
III. Science, . .	20.0	12.0	12.0	15.0	20.0	20.0	20.0	16.0	12.0
IV. History, . .	10.0	10.0	10.0	10.0	12.0	12.0	12.9	15.0	15.0
V. Miscellaneous, .	35.0*	24.0	24.0	22.0	20.0	20.0	20.0	20.0	20.0

\* Including physical exercises, games, manual training, form study, etc.

The groupings made in the above tables suggest a matter of vital importance in respect to a course of studies. I refer to the —

### CORRELATION OF STUDIES.

As is well known, this subject has attracted much attention of late among educators. To ascertain how far it has been carried into practice, I made inquiry in my letter to superintendents of schools as to whether subjects are grouped with special reference to correlation, and to what extent, if at all, the teachers are following a systematic plan of a correlation of studies. The answers to these inquiries show that in a large percentage of schools the teachers are in the effort at least to follow a well-defined plan of correlation. In most cases the plan is that of a natural or logical correlation of two or three subjects, as geography with history, nature study with geography and language with all other studies. In some replies this idea is enlarged somewhat, as in the following: —

*Jersey City, N. J.* — “In primary department nature study with (1) language and composition, (2) with reading, (3) with drawing; reading with language and composition. In grammar department,

geography with history, nature study with reading, language and composition, drawing with all, particularly with history."

*Brookline, Mass.* — "Geography, history and literature are correlated in every grade. Recently we have been trying to correlate the music, using songs appropriate to the season and to the various subjects of nature study as they are taken up; also songs of different countries. Reading, drawing and language are correlated with all other subjects."

*Springfield, Mass.* — "Language studies are taught chiefly in connection with thought studies. Physics and geography on the one hand and geography and history on the other are closely connected. The drawing is closely connected with geography, history, literature and nature study."

*Pawtucket, R. I.* — "Geography is considered a large subject, embracing these two content or thought centres: (1) nature study, (2), history and literature. Topics selected from these centres are presented with a view to subsequent language work. The teacher keeps this thought continually in mind: 'Am I presenting the subject in a way to secure on the part of pupils a successful giving back in words?' The reading matter is selected with a view to supplementing the instruction given by the teacher in lower grades and text-book in the higher."

*Gardner, Mass.* — "A single exercise includes nature study, language and drawing. The reading is often selected with reference to work done in other studies. Studies of animals, plants, etc., are made to correspond with geography and history."

*Pittsfield, Mass.* — "In the first three years the information and culture work coincides with geography, and the oral language and written work are expected to depend mainly upon this for subject matter. We are trying to base reading, spelling, writing and language drill upon the same vocabulary. We aim in our course of study and instruction to secure breadth, accuracy, facility and inspiration. The results seem to indicate that we are moving in the right direction."

In quite a number of places the idea of correlation within each of three or more groups is embodied, as shown in the following:—

*Winona, Minn., Normal Practice School.* — (1) History, geography, drawing, natural science; (2) reading, language and literature; (3) mathematics; (4) vocal music and physical exercises. "These groups interlace somewhat at some points. In primary grades the most successful correlations are with language, read-

ing, natural science (nature study). The correlation of numbers with these subjects has not proved successful, and has been largely discontinued. In grammar grades the correlation of geography with natural history and natural philosophy is very successful. Grammar, reading and study of authors are well correlated."

*Clinton, Mass.* — "The groupings are: (1) history and civil government; (2) algebra, arithmetic and geography; (3) literature and language; (4) nature study, geography and drawing. Language, writing, drawing and spelling are correlated with nature study, geography and history. By this arrangement there is much saving of time and effort and a more complete understanding of the subject."

*St. Paul, Minn.* — "Groupings are: (1) nature study; (2) geography; (3) history and literature. Reading and language work based upon these three so far as possible, also drawing, painting, making and modelling. Results encouraging. Interest in school work greatly increased."

*Dedham, Mass.* — "Groupings are: (1) history, civil government and literature; (2) elementary science and geography; (3) arithmetic, geometry and mechanical drawing. Language, spelling, reading and writing are correlated with each of the above groups."

*Bridgewater, Mass., Normal Practice School.* — "The studies are taken in five groups, viz.: (1) nature study; (2) mathematics; (3) history; (4) geography; (5) language, including reading, spelling, penmanship, grammar, literature, composition, drawing, manual training, music. The aim in all grades is definite knowledge of the objects of thought and accurate expression in good English, oral and written, centering the thought upon the child's activities rather than upon the subject matter. The objects of thought are things and their relations; with the older pupils, causes according to their ability. The results are that the children are observant, thoughtful, able to express what they know. The constant endeavor is to make all the work contribute to the unfolding and perfecting of the child's life."

*Cleveland, O.* — The groupings made are as follows: —

- |                               |   |  |
|-------------------------------|---|--|
| A. Nature study, . . .        | { | Plant study,<br>Animal study,<br>Human body,<br>The earth, or geography.                 |
| B. History or the humanities, | { | United States history,<br>Civics,<br>Conduct and morals,<br>Industries.                  |
| C. Literature, . . .          | { | Study of authors and their works,<br>Literature accompanying other branches,<br>Reading. |

D. Language,	.	.	.	{ Objective study of language or construction work, Spelling, Compositions, oral and written.
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“The important relations are everywhere observed. Geography, nature study and industries; history and geography; civics, morals and history; physiology, morals, physical culture and physics; literature and reading with all. The method is the natural method of association, consciously carried out by the teacher under direction of supervisors.”

In some instances the correlation followed evidently includes the idea of concentration, with one or two central studies, as shown in the following plans:—

*Minneapolis, Minn.*—“In primary grades, reading, spelling, writing, singing (to a degree), language (oral and written), drawing and industrial work are correlated, as expressing and supplementing the central thought of the morning talk. The subjects of the morning lessons are nature study in spring and fall and literature in the winter. In grammar grades there is no center of correlation. Language and composition are related to geography, history or general lesson.”

*Cook County Normal School, Chicago.*—“The central subjects are science, geography and history. Writing, oral reading and all the art work are concentrated upon the central subjects. Nearly ten years ago the faculty began the work of correlation of all subjects. The entire movement of the school is based upon this fundamental principle. All modes of expression spring directly from investigation and study of geography, history and nature study. Arithmetic is carefully correlated with all subjects.”

*Framingham, Mass., Normal Practice School.*—“In the first grade, all subjects are taken in one group, based on *literature*,—“the story of Hiawatha.” In the second and third grades, studies are grouped as much as possible around *science work*. Some reading which is real literature and number work are grouped with form as well as science. In the grammar grades, reading is correlated with history, geography, language and science; language with reading, geography, science, history and drawing; geography with history.”

*California, Pa., Normal Practice School.*—“Science and literature are central studies. With them are associated reading, spelling, writing, language, geography, and to some extent arithmetic and drawing. The aim in general is to teach the form studies through the content studies.”

Some replies give in detail the method pursued. The following are among the best of the outlines of lessons presented:—

*Worcester, Mass.*—Illustrative work in correlation of history, literature, language (oral and written) and drawing (maps, pictures):—

*Settlement of Plymouth.*

I. *History.*—Each child has geography open at map of Massachusetts.

(a) Description of town from recent visit.

(b) Historical points of interest, as “The Rock,” “Pilgrim Hall,” “Cemetery,” etc.

(c) Historical facts connected with points of interest. Illustrative pictures shown.

(d) Why people came; England; Holland; “Mayflower”; voyage; landing. Geography open at map of world.

(e) Experiences of first winter; food; climate; Indians, etc.; customs of people.

II. *Literature.*—“Courtship of Myles Standish,” “The Landing of the Pilgrims” and “The Pilgrim Fathers” read and talked about.

III. *Language.*—Oral and written reproduction for clear, concise statements; paragraphing; capitalizing; punctuation, etc.

IV. *Drawings,* to illustrate written work, are made from pictures connected with subject matter; where possible, drawings are made from objects; also map of Massachusetts, locating Plymouth.

*North Attleborough, Mass.*—Illustrative work of one day in second grade, October 20: subject of morning talk, “Winds.” The good the winds do; the harm. Direction of wind (this helped to review points of compass). Children infer which is the cold winds, the warm wind, the rain wind, and the wind which brings pleasant weather. Memory gems in connection with winds learned and little songs sung,—“Clouds of gray,” “Come, little leaves,” and “Which way does the wind blow?”

In spelling, such words as would be used in written work given.

In language, the words “hear” and “sea” and forms of “blow” brought in connection with the subject. Filling of blanks in sentences like “Oh ——— the wind!” “The wind has ——— the leaves from the tree.” Sentences written in answer to questions placed upon the blackboard, such as, “Which is the cold wind?” “Which wind brings rain?”

Stories read and told: “Odysseus and his bag of winds;” “How the West Wind helped Dandelion;” “Four Winds,” from “Hiawatha.”

*Normal, Ill.*—Sixth grade. “*History:* Causes of the French and Indian War; desire of France and England to secure the fur trade;

differences in religion, etc. “*Geography*: Valley of St. Lawrence; the Great Lakes; Ohio River; Nova Scotia and New Brunswick; Lake Champlain and Lake George; pineries of west and north; fisheries on coast. *Science*: Fur-bearing animals, — beaver, otter, mink, bear, buffalo, raccoon; also deer and moose. *Arithmetic*: Relative size of the lakes, expressed decimally; of the States in the once disputed territory; relative worth of various kinds of furs, etc.”

Some of the above extracts suggest possible dangers of over-correlation, — the dangers of restraining limitations on the one hand and of the forcing of unnatural relations on the other. But some of them also suggest lines of correlation which every course of study should indicate. If the desired correlation of studies signifies nothing more than a means of remembering certain facts of a subject, it may be limited to incidental references which any good teacher makes in her teaching, and no mention need be made of such references in the course of studies more than to state the fact that in every study the teacher should bring together in the recitation certain related ideas for the purpose of fixing those ideas more firmly in the pupils' minds. It is asserted by some that a correlation of studies means only a sequence of studies such as would be made with the ends of education clearly in view. According to others, these views of correlation are insufficient as a guide to education. The mind, they say, naturally unifies the knowledge it receives, and it is the function of the course of studies, as it is of the teacher, to assist nature in this work. With the idea of incidental association of ideas only in mind, or that of a proper sequence of topics in the study of a subject, the teacher finds it difficult to “assist nature” in following some of our present courses of studies. With these courses only as guides, she might lead her pupils to learn the commercial cities of Europe, the history of Mexico, the names of the planets and the distinguishing characteristics of an orchid, to conjugate the verb “to be,” to write a composition upon perseverance, to read about the exploits of John Smith, to perform problems in partial payments and to spell the names of the diseases, — all to be studied and recited on the same day. This many teachers will say is not an exaggerated record of what they are expected to do in a single day. In other words, the course of studies in many cases is simply an aggregation of subjects put to-

gether with no reference to their natural relations. Moreover the burden is becoming more heavy and the trial more perplexing as year by year new studies are added to the curriculum. A true correlation of studies will help to solve the difficulty by furnishing to the teacher helps both in the unification and in the co-ordination of studies. To accomplish these ends it will be necessary to select the parts of all subjects for a given term or month that have a close relation to one another, and to arrange them in groups that are in some degree co-ordinate; i. e. equally essential as a means of gaining the chief ends of education. There are parts of literature, history, science, mathematics and the language arts that are clearly connected, logically and psychologically. These subjects should be arranged in a course of studies so that they may be carried on together. It will not be necessary to confine the work of the school to these related subjects, but they constitute both in kind and in amount the essential work to be done in a given time. That the education may be harmonious or many-sided, at least one subject of each of the great co-ordinate group of studies must be pursued during the entire school period.

In the matter of grouping with the above ends in view, there is some difference of opinion. Some of the groups given on previous pages of this report are the results of wise experience, and may serve as guides to correlation. Other groupings are found in the returns, among the most suggestive of which is the one made by President Snyder of the Colorado State Normal School. It is as follows:—

- |   |   |   |  |
|---|---|---|--|
| I. Science or Nature Group,               | . | { | Physics, chemistry, zoölogy, botany,<br>geography, etc.  |
| II. Social or Man Group,                  | . | { | Geography, government, economics,<br>history and literature.   |
| III. Spiritual or Ethical Group,          | . |   | History, literature, ethics, religion.   |
| IV. Psychomaneual or Expression<br>Group, | . | { | (1) Qualitative: speech, drawing,<br>art, construction.<br>(2) Quantitative: construction, math-<br>ematics. |

In my annual report of two years ago I presented a grouping of subjects which was intended to suggest lines of separation for departmental instruction. That grouping, with some modifications and additions, might also serve as a basis for



correlation. It bears a close resemblance to groupings elsewhere made in this report, especially to that which is given in Table XV.\* With that table as a guide, a plan of studies may be arranged having the following features:—

1. The selection of topics should be so made as to be of general use. This general course to serve as a basis for more detailed courses in given localities.

2. The selection of topics should be made from all groups, so that at least one subject of every group will be presented for a given time.

3. The selection of topics from each group for a given time should be made with reference to their logical relations to the topics of all other groups, so far as the nature of the subjects and a proper treatment of each will permit.

4. No reference to a centre or to centres of correlation need be made in the general course, it being understood that each subject taught will be the centre, with which all other subjects at the time will be correlated.

5. No reference to the place or time of isolation in teaching need be indicated, since that and all other matters relating to methods of treatment will be left to the teacher.

#### DEPARTMENTAL INSTRUCTION.

Departmental instruction has attracted especial attention during the past few years, having been tried under different circumstances in various places. The following facts are gleaned from the returns received last year and from some courses of study not covered by the returns. They relate only to the departmental instruction which is carried on by regular teachers in the primary and grammar schools. The work of special teachers of music, drawing, manual training and elementary science is not here noted.

*Braintree, Mass.*—Thirteen teachers, in a total of twenty-six, of grades five to nine, have been teaching departmentally during the past two years. Each teacher has charge of a room, and remains in it about half of the school time. The superintendent reports as follows upon the advantages and disadvantages of the plan: “I think

it is too mechanical; does not recognize natural economical and common-sense correlations to any adequate extent. The cause of this is a lack of knowledge of correlations and a good working scheme of them. Slight friction in discipline at times is a disadvantage. A balanced emphasis in teaching is placed upon all subjects, — none are neglected. Some subjects which could not be taught at all without a special teacher are taught excellently. It is an advantage for a teacher to be with pupils more than one year."

*Brooklyn, N. Y.* — About one fifth of the teachers of the city follow the departmental plan in the sixth, seventh and one half of the eighth school years. Each departmental teacher has charge of a room, seeing to the opening exercises and the records of her room, and teaching in it from one fifth to one half of her time. Each teacher teaches her specialty or a correlated subject. The plan has been in operation four years, and the following results are reported: "The special teachers become better acquainted with peculiarities of individual scholars, become better acquainted with subject matter and method. Weak teachers may be assigned to relatively unimportant studies. On boys' side, strong disciplinarians are needed to make the system successful."

*Concord, Mass.* — Eight out of nineteen teachers teach outside of their rooms more than half the time. Of the plan, which has been in operation four years, the superintendent writes: "I have seen no disadvantages that seem to me of importance. The average teacher seems to teach any subject through a course of three or four years much better than three or four average teachers teach the same subject in fragments during the same period of time. This results in better mental training of the pupil and in better discipline. The plan demands wise administration and proper subordination of teachers to a principal."

*Dedham, Mass.* — Each of the teachers of grades seven, eight and nine follows the departmental plan, remaining in her room about two and three fourths hours daily. A "great gain in scholarship" is reported as a result of the plan, which has been in operation a few months.

*Chelsea, Mass.* — About one half of the teachers, all in the grammar grades, teach one or more subjects outside of their rooms. The plan followed is by an exchange of subjects, generally some subject for geography. The superintendent writes (November, 1896): "Our scheme in geography is so difficult that it becomes necessary to have special teachers. The only disadvantage is when a teacher is weak in discipline. A specialist in geography brings about splendid results with us, as we are using Mr. Murdock's plan entire."

*Everett, Mass.* — The superintendent says of the work done here : “ We have no set plan in this direction. If we have good, strong teachers, subjects are exchanged to the best advantage in individual cases. With one poor or ordinary teacher, the classes suffer in discipline, etc. With all strong teachers it is a success in the *higher classes*.”

*Gardner, Mass.* — For two years a few teachers of the lower grades have taught outside of their rooms for one hour of the day. “ With present teachers and conditions, the plan appears to be profitable.”

*Lawrence, Mass.* — Twenty out of two hundred teachers teach one or more subjects in two or more rooms, of grades seven and eight. Each departmental teacher has charge of a room about one half of the time. The teachers specialize in one subject only. The advantages given, after one year’s trial, are : “ Better preparation on the part of teachers, more enthusiasm among pupils and more systematic instruction.”

*Lowell, Mass.* — A few teachers teach departmentally in the seventh and eighth grades. Various plans are pursued. In one school one teacher has charge of the music in four rooms. A few teachers exchange subjects, *e. g.*, arithmetic for grammar, geography for history. The results noted after several years’ experience are as follows : masters are advised to encourage exchanges between teachers in upper grammar grades. “ It has been done in a few cases, but the success has not been sufficiently marked to cause any considerable increase in departmental teaching.”

*Lynn, Mass.* — Eleven out of eighty-six teachers in the grammar grades teach subjects outside of their respective rooms. Thus in one school arithmetic and algebra are taught by one teacher, history and geography by another, language and grammar by a third, civics and history by a fourth, penmanship by a fifth, reading by a sixth and elementary science by a seventh. The plan has been in operation two years, and the advantages and disadvantages are reported as follows : “ Advantages : the teacher is definite in purpose as to matter, method and interest ; ample preparation ; enabled to correlate subjects. Pupils broadened in scope ; trained toward accurate observations and clear, connected thinking ; fairly adequate expression. It leads pupils to further or renewed interest and extended definite reading. Disadvantages : in some instances lack of personality in teachers. Individual comparisons of teachers and false estimates of teachers by pupils.”

*Malden, Mass.* — Departmental instruction is carried on by two thirds of the teachers in all grades above the third. All the departmental teachers have charge of a room except one, who does work

with special classes, doing two years' work in one. About half of the time on an average is given by a teacher to one subject outside of his or her room. The plan has been in partial operation one and one fourth years, and in full operation three months. So far the plan is liked, because each teacher can be given work suited to her taste and ability.

*Marlborough, Mass.* — One third of the teachers are employed departmentally in all grades above the fourth. Each teacher has charge of a room, but no more time is spent in that room than in any other room, as the work is wholly in departments. The plan has been in operation two years, with the following results: "Every advantage. Better work, better discipline, easier for teacher. General tone is better. Teachers all prefer it."

*Medford, Mass.* — About forty per cent. of the teachers in grades six, seven and eight teach departmentally, each having charge of a room in which she is teaching about three hours. Each teacher teaches in her room the subjects which she teaches in other rooms. The results after three years' trial are reported as follows: "The advantages are chiefly on the teachers' side. There is less nervous tension than when one carries so many subjects. The disadvantage is chiefly that teachers do not come into such close relations with pupils as under the other plan."

*Middleborough, Mass.* — The departmental plan has been followed to a small extent in the upper grades. The advantages observed by the superintendent are: "(1) It renders possible an enrichment of the course of study without increasing the burdens of teachers and pupils; (2) it improves the skill and scholarship of the teachers; (3) subjects are better taught; (4) time and energy are saved; (5) it gives a certain unity to the instruction in each subject; (6) it improves the scholarship of the pupils."

*Milton, Mass.* — About one eighth of the teachers, mainly in the upper grades, have followed the plan for three years, each teacher having charge of a room and remaining in it about half the time. The superintendent reports, as a result, "Better teaching; no disadvantages."

*New Bedford, Mass.* — Thirty-eight of the forty-four teachers in the grammar grades follow departmental teaching; each having charge of a room, in which she teaches from one third to one half of her time. There being several classes of each grade in the same building, the work of each grade is distributed among a few teachers. After two years of trial, the disadvantages are said to be trifling. The advantages are better teaching and better preparation.

*Quincy, Mass.* — The departmental plan is followed by about ten

per cent. of the teachers, mainly in the upper grades. Each departmental teacher has charge of a room and teaches in it about one third of the time. In one large school building the plan is followed by all the teachers. "In this school," says the superintendent, "the change in the teaching force has been so slight and the teachers have been so evenly balanced in discipline and in teaching power that the principal considers his results better than he could secure before the change. In our other schools I prefer to limit such departmental work to grades seven and eight, because of the incessant change of teachers."

*Springfield, Mass.* — About ten per cent. of the teachers teach departmentally, under the direction of principals. Each of such teachers has charge of a room, and teaches in it about two hours daily. They are generally teachers of grades six to nine. The results reported by the superintendent are as follows: "Teaching is more effectively done. There is little opportunity for routine 'lesson-hearing' where one teacher follows another before the same class. If teachers work together harmoniously, the co-ordination of various studies is easily made; if they don't work together, this suffers. Discipline is a trifle harder under the departmental plan. Poor teachers cannot survive under it."

*Worcester, Mass.* — Thirty-five or forty teachers are doing a little departmental work, mainly in the upper grades, each teacher having charge of a room, and teaching outside of it but a small portion of the day. The advantages observed by the superintendent are as follows: "The advantages most evident are: first, that a teacher can in a degree become a specialist, if she has but a limited number of subjects to teach; second, the quality of instruction is decidedly improved. If teachers undertake to do departmental work who are not good disciplinarians, confusion is likely to follow. The most successful instances of departmental work that I have seen are where two teachers work together. If the circle is larger, the difficulties multiply in geometrical ratio. In cases where there are two ninth grades in a single building, departmental work is almost universal, and applies to nearly all the subjects taught."

As would be expected, the expression of opinions in respect to the disadvantages of the departmental plan is not full or pronounced. The fact that the number of places reporting no departmental teaching far exceeds the number reporting such teaching is partial evidence of its not being favored. An expression of reasons for not following the plan was not called

for, and yet several expressions of that kind were given by some of our most thoughtful superintendents. The following quotations will show the character of these objections :—

“If knowledge were the end of education, the departmental plan might be used ; but, as character is the one end and aim of our work, the departmental plan, therefore, has no place in our teaching.”

“We are likely to have more departmental work in the grammar schools, but I question whether its advantages will offset the opportunity for that fine correlation of studies that obtains in the system of class instruction.”

“Detrimental in the extreme ; undermining the personal influence of the teacher, which is the greatest possible factor in the moral education of the child.”

“Having tried, in a school of twelve teachers, the departmental system for two years, I dropped it, and am prepared to state why that system in elementary schools is not for the best interests of our children.”

“A poor teacher on any subject has the opportunity to spoil more children in teaching half a dozen classes in that branch than in teaching only one class. It is difficult to fix responsibility on pupils for bad conduct when they are with several teachers.”

“I think that the departmental plan tends to narrowness and irresponsibility on the part of teachers and laxity of discipline on the part of pupils, and, with laxity of discipline, poorer work. In cases where there is an assembly study room with recitation rooms, the departmental plan is more likely to produce good results. I am satisfied, from my observations, that departmental work in an ordinary building and for the ordinary studies rather weakens than strengthens the instruction as a whole.”

From so many contrary opinions it is difficult to form conclusions in any degree satisfactory to all. I venture, however, in the light of this investigation and of direct observation in the schools, to recommend the adoption of the departmental plan of instruction in the elementary schools, subject to the following limitations :—

1. Departmental instruction should be confined to the middle and higher grades.

2. Each teacher should have charge of a room, and should teach the pupils of that room at least three fifths of the time during at least one year.

3. A teacher should teach outside of her room but one subject, or two closely correlated subjects.

4. There should be frequent consultations of teachers, for the purpose of laying out correlated work and of making a proper balance of work for the pupils.

#### ELECTIVE STUDIES.

It has been generally assumed that the subjects pursued in grades below the high school are subjects needed for all pupils, unmindful of their expected career, and that, therefore, such subjects should be made obligatory in these grades. But the introduction of new studies into the grammar school course has brought up anew the question of carrying the elective system below the high school, where the system has been followed successfully for several years in many cities and large towns. In my letters of inquiry last year, information was sought concerning elective studies. From the responses received there are only sixteen which reported that a choice of studies was permitted pupils in the elementary grades, either as extra, or as optional between two studies. The following table shows the extent to which electives are permitted in sixteen of the seventy-six places reporting : —

TABLE XVI. — *Showing the Places and Grades of Grammar Schools in which Electives are permitted, and Some of the Results observed by the Superintendent or Principal.*

CITY OR TOWN.	Subject.	Grade in which the Subject is elected.	Number of Years the Plan has been in Operation.	Remarks of the Superintendent or Principal.
Braintree, . .	Latin, <sup>1</sup> . .	7, 8	2	Every pupil in the class has chosen the subjects. No definite results yet.
	Algebra, <sup>2</sup> . .	7, 8	2	
Brookline, . .	Latin, . .	9	-	- - -
	French, . .	7-9	-	
Cedar Falls, Iowa (Practice School).	Latin, <sup>3</sup> . .	8	2	Have found the introduction of Latin as an elective a benefit to the work of the school, and the progress made by the pupils sufficient to assure me that it is a desirable grade in which to begin the subject.
Cleveland, O., . .	German, <sup>3</sup> . .	1-3	-	- - -
Clinton, . . .	Algebra, <sup>2</sup> . .	7-9	2	Results are good. We like the plan.
	Geometry, <sup>2</sup> . .	7-9	2	
Concord, . . .	Latin, <sup>1</sup> . .	7, 8	4	Results are reasonably good.
Dedham, . . .	Latin, <sup>3</sup> . .	9	3	- - -
Denver, Col., . .	German, <sup>3</sup> . .	5-8	-	It should be as all other studies, entirely compulsory or not pursued at all.
Framingham (Practice School).	Latin, <sup>3</sup> . .	7-9	1	All pupils decided to take the subject.
Gardner, . . .	Latin, <sup>1</sup> . .	9	-	- - -
Milton, . . .	Latin, <sup>1</sup> . .	7-8	3	About sixty per cent. of pupils elect Latin. The choice is made between Latin, including English grammar, and English grammar alone.
Springfield, . .	Man'l Train'g, <sup>3</sup>	4-9	-	Manual training and sewing, grades 4-9; cooking, grades 7 and 8. Practically all the pupils elect these.
Trenton, N.J. (Practice School).	Latin, <sup>1</sup> . .	8	-	- - -
Watertown, . .	German, <sup>1</sup> . .	9	5	- - -
Winchester, . .	Latin, <sup>3</sup> . .	8, 9	2	The results have been favorable to interest and to progress.
	French, <sup>3</sup> . .	8, 8	2	
Woburn, . . .	Latin, <sup>1</sup> . .	8, 9	2	The plan is working satisfactorily.

<sup>1</sup> Taken in place of English grammar.

<sup>2</sup> Taken in place of arithmetic.

<sup>3</sup> Extra.

From the experience outlined above, it would seem that the main question of elementary school electives is at present in connection with a foreign language. Algebra and geometry may well be taken with arithmetic, and be required from all



pupils in the upper grades. There is also no question as to the desirability of making elementary science or nature study a required study in all grades. In respect to a foreign language, whatever we may think of it as desirable for all pupils in the higher grades of the grammar school, we cannot look upon it as one of the great co-ordinate subjects or group of subjects necessary to the highest interest of all. The prejudices of the people also must be considered in making up a list of required subjects. There are those who regard time spent upon anything but English branches as an absolute waste, especially for those who are to leave school at the end of the grammar school course. It would seem best, therefore, to make the study of a foreign language optional, either by making it an extra study or by permitting it to be taken in place of some part of the work in English grammar.

Thus far I have treated those features of a course of studies only which deal with the subjects of study, their arrangement and proper adjustment to teaching conditions. There is a phase of the subject which properly belongs to the organization of the school, but which vitally affects the course in its adaptation to the needs of the pupils. I refer to —

#### THE GRADING AND PROMOTION OF PUPILS.

There is no question of school organization at present more important than that of a proper adjustment of conditions to the needs of individual pupils. The assumption upon which most courses of study seem to be based, that just so much ground must be gone over with equal thoroughness by all pupils in the same time, is the greatest bane of our public school system. The courses in use are probably intended to meet the needs and capacity of pupils of average ability. Such, however, is the difference of ability between the brightest third and the dullest third of almost every class of pupils, that the work thus required is enfeebling to one part while it is discouraging or unduly excessive to the other. To neither group is there the stimulus of success with effort. To one group there is success without effort; to the other there is effort without success. The difficulty, it is feared, is enhanced by the want of ability or inclination on the part of many teachers to adapt each lesson's

requirements to the capacity of individual members of the class.

There are some signs of reaction against a system which encourages or permits a dead uniformity of ability and effort. The only fear is that the opposite extreme of individualism will be sought as a remedy. As between the practice by which forty or fifty pupils of all degrees of ability are required to do the same work with nearly equal efficiency, and a return to individual teaching such as was carried on in ungraded schools forty years ago, there is but little choice, although the ill effects of the two practices must be felt in widely different ways. But a choice between these extremes of practice ought not to be necessary. No more useful service can be rendered the public schools than that of devising ways by which the benefits of a class system of teaching will be secured, and at the same time such an adjustment of work be made as will permit pupils of varied abilities to do the most for themselves. To this task many educators have given much time and effort of late. Out of all the plans that have been devised, there should be found some which can be readily adapted to any conditions that are likely to exist. It is evident that no one scheme will do for all. A classification which can be made in large schools should not be made in small ones, and a system of promotion that is feasible in small ungraded schools would be wholly inoperative in large graded ones.

In responses to letters of inquiry to prominent school superintendents throughout the country, concerning plans of classification and promotion, over eighty replies have been received, from which the following facts and conclusions are gathered :—

The written examination as the sole means of ascertaining the pupils' fitness for promotion seems to be passing away. Out of the entire number of places reported, there are but seven in which entrance to the high school is determined solely by examinations, and only two in which promotions from grade to grade in grammar schools are so determined. It is pleasant also to record the fact that in only four cities is the determining element for admission to the high school the superintendent's examination alone. The teachers' judgment alone generally determines the class in which pupils of the primary schools are placed. Promotions from grade to grade in the

grammar schools of about two thirds of the places reported are based upon the combined judgment of the class teacher and that of the superintendent or principal. In a few instances the examination by the superintendent or principal is made the determining element in all doubtful cases only, or cases in which the teacher is not able to decide.

The intervals between classes or grades in about two thirds of the cities and towns reporting are one year. In the other third the intervals are one half year or less. In the report of the Commissioner of Education for 1890-91 returns from four hundred and sixty-five cities and towns of over four thousand inhabitants show the proportion of short intervals to be much greater than this. Several places report shorter intervals for the primary schools than for the grammar schools.

The methods of promotion will first be considered of those places in which the intervals between the classes are one year.

In about one half of the cities and towns reporting, special provision is made for individual promotions or promotions out of course. Where no such provision is made, there are reported either few individual promotions or none at all. Quite a number of superintendents report that the matter is left with teachers, with the request that pupils be promoted whenever they are qualified; but in such cases there is either no report of the number of individual promotions, or else the number of such promotions is so small they may be said to be rare exceptions. A few superintendents seem opposed to double promotions, on the ground that some portion of the course is either done slightly or else entirely omitted, or, as one superintendent says, "Good pupils are spoiled by being advanced beyond their depth, merely because they are bright."

Where special provision is made for advancing pupils out of course, the widest difference of practice and of results is reported. In some cases the teachers are asked to report all pupils who by superior scholarship or by maturity are deserving of promotion out of course. A list of such pupils is kept by the principal or superintendent, and special facilities are afforded those who desire to be advanced. A few superintendents cause each grade to be divided into two sections, according to scholarship, thus enabling pupils to pass more easily from one grade to another during the year. In the primary schools

the pupils of a single class or grade are sometimes divided into three sections or groups in the same way. In one city where the latter plan is followed a modified form of the monitorial system is followed, in which the larger pupils from the highest grades often hear pupils of the lower grades in reading, either individually or in groups of two or three.

The group system of classification is carried out still further in a few towns, as in Leominster, Mass., whose superintendent reports as follows:—

In the lowest grades we divide pupils into four or five groups, higher grades into three and sometimes possibly only two. Pupils pass readily from one group to the next higher without the so-called “jump,” whereby a certain amount of work is always lost. Pupils in the most advanced group in a room are doing about the same work as pupils in the lowest division or group of the next higher room. This enables pupils to go readily from one group to another, and at the same time also from one room to another.

Several cities and a few towns report the opening of an ungraded school in each of the large graded school buildings. In this school are placed backward pupils or pupils who cannot be readily classified in existing classes. Here, too, are pupils who are trying to get into a higher grade. The superintendents in their letters and reports speak in unqualified terms of the great good accomplished by the establishment of these ungraded schools. In some places the same end is reached by one or more assistants going from school to school in a building to assist backward pupils or pupils who are trying to get into an advanced division.

A number of superintendents whose schools have the one year interval between the classes report a plan of dividing the classes into small sections in two or three essential subjects, and of permitting pupils who do especially well in these subjects to be pushed forward. Elizabeth, N. J., is a conspicuous example of this kind of classification. Here a class or grade of pupils is divided into three or four divisions in each of the most important subjects, as arithmetic and grammar, the divisions going forward as rapidly as they are able to, and continuing their pace even after the grade promotions are made. “Thoroughness in essentials” is made the motto. Individual

promotions are made generally at the end of each month, but it is understood that any pupil may be advanced as soon as he shows that he can do more for himself in another division. A complete record of every pupil is kept, which shows the exact amount and character of the work done, the pupil's characteristics, etc. This is a kind of life-book such as is made in the French schools, and is passed on from teacher to teacher, as the pupil advances. Last year's statistics show that twenty-three per cent. of the pupils earned irregular promotions, and that sixty per cent. of them were reclassified during the year and placed where they could do better work.\*

Of other plans followed in schools having one-year intervals between the classes, a few will be given somewhat in detail.

The plan pursued in Cambridge, Mass., deals only with the grammar school course, which is supposed to cover six years' time of pupils of average ability. A few weeks after the pupils enter the grammar school, in September, they are separated into two divisions, according to ability, one division called grade A, and the other division called fourth grade. The pupils of grade A move forward with the aim of completing the prescribed grammar school course in four years, succeeding grades being called B, C and D. The pupils of the fourth grade go forward more slowly, aiming to do each year only one sixth of the work prescribed for the grammar school. The grades of these pupils in succeeding years are known as fifth, sixth, seventh, eighth and ninth. At the beginning of the second year the pupils of what was grade A, now called grade B, go into a room with pupils of the sixth grade. During the first part of the year the pupils of the sixth grade are in advance of the pupils of grade B, but, owing to the superior ability of the latter division, they all come together during the latter part of the year. At the beginning of the third year precisely the same conditions exist as existed at the beginning of the first year. The pupils of grade C recite with the pupils of the seventh grade for a few weeks, when a readjustment is made, the abler pupils moving on at a pace sufficiently rapid to finish the course in two years, leaving the others to finish it in three years.

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\* The details of this plan were published in the "Atlantic Monthly" for June, 1897.

The fifth grade pupils are alone in a room under one teacher during an entire year; the same is true of the eighth grade pupils. In all other rooms there are two grades or divisions, one belonging to the four years' course and the other to the six years' course.

A pupil who begins with the fourth grade and remains in the slower division to the end of the course will graduate in six years, unless he has to repeat. A pupil who begins with grade A and remains in the more rapid divisions to the end of the course will graduate in four years. A pupil at the end of the sixth grade or of grade B may go on with a division which will enable him to complete the course in five years. Thus it will be seen that the entire course of study may be finished in four, five or six years, depending upon the strength or ability of the pupils, and all without the omission or repetition of any part of the course.

All promotions both from the grammar to the high school and from grade to grade are made by the class teachers, under the direction of the principal and superintendent. No pre-announced examinations are given, but there are frequent written reviews given by the teacher, the results of which help to determine the fitness of pupils to go forward. One feature of the plan which has helped it to succeed is that of the employment of a special teacher in each building, whose business it is to assist pupils who are behind in their classes in any studies, or who are trying to get into an advanced class. This assistance, however, is no essential part of the plan. It may properly be used with advantage in carrying out any plan.

Of the four hundred and sixty-seven grammar school graduates in the year 1896, eight per cent. completed the course in four years, thirty-three per cent. in five years, forty-nine per cent. in six years, and ten per cent. in seven or more years.

One good evidence of the benefits gained by the plan is the kind of work which is done by the pupils after leaving the grammar school. The following table, furnished by Superintendent Cogswell, shows how the pupils who completed the grammar school course in four years and in five years sustained themselves during the first year in the high schools, the results being compared with those of pupils who were six years in the grammar schools:—

*In the Latin School.*

RECORD OF THREE DIFFERENT CLASSES.	FOUR YEARS IN GRAMMAR SCHOOLS.	FIVE YEARS IN GRAMMAR SCHOOLS.	SIX YEARS IN GRAMMAR SCHOOLS.
First Year in High Schools.	Average in High Schools.	Average in High Schools.	Average in High Schools.
Class of 1897, . . .	79.3 per cent.	72.8 per cent.	66.9 per cent.
Class of 1896, . . .	80.4 “ “	77.0 “ “	71.6 “ “
Class of 1895, . . .	78.7 “ “	78.9 “ “	76.4 “ “
Average for 3 years, . .	79.4 “ “	76.2 “ “	71.6 “ “
Whole number of pupils in the classes, . . .	21.5 per cent.	39.8 per cent.	38.7 per cent.

*In the English High, General Course.*

Class of 1897, . . .	79.7 per cent.	78.7 per cent.	72.2 per cent.
Class of 1896, . . .	85.9 “ “	75.1 “ “	76.4 “ “
Class of 1895, . . .	77.3 “ “	76.2 “ “	73.4 “ “
Average for 3 years, . .	80.9 “ “	76.6 “ “	74.0 “ “
Whole number of pupils in the classes, . . .	13.8 per cent.	43.1 per cent.	43.1 per cent.

*In the English High, Commercial Course.*

Class of 1897, . . .	76.3 per cent.	69.0 per cent.	69.3 per cent.
Class of 1896, . . .	74.8 “ “	70.9 “ “	68.4 “ “
Class of 1895, . . .	73.7 “ “	73.5 “ “	69.8 “ “
Average for 3 years, . .	74.9 “ “	71.1 “ “	69.1 “ “
Whole number of pupils in the classes, . . .	12.1 per cent.	38.4 per cent.	49.5 per cent.

*In the Manual Training Course.*

Class of 1897, . . .	78.6 per cent.	67.2 per cent.	61.7 per cent.
Class of 1896, . . .	79.2 “ “	63.5 “ “	65.2 “ “
Class of 1895, . . .	72.6 “ “	65.4 “ “	65.9 “ “
Average for 3 years, . .	76.8 “ “	65.3 “ “	64.2 “ “
Whole number of pupils in the classes, . . .	9.9 per cent.	39.5 per cent.	50.6 per cent.

To the criticism that this plan of classification can be used only in large systems of schools or in large buildings, it may be said that in one of the Cambridge schools, where the plan

is in full and successful operation, there are only three hundred and thirty pupils distributed in six rooms, one room having eighty pupils, with two teachers. Of the present graduating class, numbering fifty pupils, four will probably have completed the nine years' course in six years at the time of graduation, twelve in seven years, sixteen in eight years, fifteen in nine years and three in ten years. Principal Cutter of this school says of the plan : —

It is my belief that the plan can be successfully carried out in a school requiring but four or three teachers. There is more than one way to bring about a desired result. The eighteen pupils who were last year in grade A entered in September the same room with grade VI., and are now well abreast of the pupils of this grade. The same thing is true of the ten pupils of grade C in joining the ninth grade. In neither case is there a pupil who is now failing to sustain himself with credit. I am a hearty believer in the scheme ; and it can no longer be said that in a graded system the brighter pupils must be kept marking time to the pace of the slower ones.

Added testimony to the adaptation of this plan to a small system of schools is found in Middleborough, Mass., whose enrolment of pupils is about eleven hundred, the enrolment in the three buildings where the plan is in operation being four hundred and seventy-four, with eleven teachers. Of the present graduating class, numbering fifty, about fifteen will complete the course in one year less than the prescribed time. Concerning the advantages that may be claimed for the Cambridge plan, Superintendent Jacoby writes as follows : —

1. It gives pupils an opportunity to do the grammar school work in four, five or six years, without omitting any essential part of the work.
2. It enables pupils to better use their ability and time.
3. It permits the grouping of pupils of the same degree of advancement, thus making the conditions for successful work more favorable.
4. It does not complicate or destroy the organization of the schools.

In Woburn, Mass., a plan of “ double promotions ” has been in operation for some years, and has been attended with good results. In the primary schools the interval between classes is made short by dividing the pupils into small sections. As



there are three or more sections in each room, the class intervals are so short as to permit frequent changes, the section rather than the grade being the unit of promotion. The nominal time for the completion of the primary school course is three years, but many complete it in much less time. In each of the grammar grades the essential features of the entire work prescribed for the year are taken during the first half year, and those pupils who have successfully performed the work, especially in language and arithmetic, at the end of the half year, are promoted to the next higher grade. During the second half year a more minute study of the topics in language and arithmetic already pursued is made, by which an opportunity is afforded for new pupils to do the work of the grade, and for those who have done it imperfectly to review it. By this plan bright pupils are given the opportunity of passing through two grades in one year. The number of pupils who won mid-year promotions last year in the grammar grades was one hundred and twenty-nine, of whom one hundred and four received a second promotion at the end of the year. The number of mid-year promotions in 1895 in the same grades was three hundred and fifteen. Of this number, all but seventy-eight were again promoted at the end of the year. The present total enrolment in the ninth grade is one hundred and forty-five. Of these, three have completed the nine years' course in six years, ten in seven years, thirty-three in eight years and ninety-nine in nine or more years.

Some possible objections to the plan are met by Superintendent Emerson, who says : —

The conditions of promotion in every case are punctual and constant attendance, high rank, good conduct, good health and the consent of parents.

And again : —

This special adjustment of the work in language and arithmetic is necessary on account of the nature of these subjects, each principle being so related to those that precede it that the pupil is obliged to carry in his mind a general outline of the entire subject. This is not true of the other branches of study, such as geography, history, spelling, etc. It is of little moment which hemisphere is studied first, which continent shall have the precedence, or in what order the countries of a given continent are studied.

In Keene, N. H., a plan has been in operation for three years which embodies some features of plans already described. Its resemblance to the Cambridge plan consists in the division of two grades into A and B sections, one of which goes forward at a more rapid pace than the other, with opportunity for pupils to cover a six years' course in four or five years. Its plan of reviews at stated times for the convenience of those who omit some portions of the work, as well as for those who need more drill in the subjects reviewed, resembles in some respects one of the essential features of the Woburn plan. In the Keene plan, the A or advancing divisions do not work ahead in all subjects, but only in those subjects in which consecutive work is necessary, as grammar and arithmetic, the plan resembling in one important respect those followed in both Elizabeth and Woburn. There are other features of the Keene plan which are unique, and show the value of skilful planning and careful oversight. There are ten grades below the high school. Of ten hundred and fifty-six pupils belonging last year, forty-eight special promotions were made during the year. In the present graduating class of eighty-four in the grammar school, fourteen will have completed the course in nine years, four in eight years and one in seven years.

The reports of plans of promotions in schools having short intervals between the classes are almost as varied as those already referred to. In nearly all of these schools the reported number of double promotions during the past year far exceeds the number reported from schools where class intervals are one year in length, the percentage of such promotions, based upon the number of pupils enrolled, ranging from three to thirty per cent. In a majority of this class of schools there are twenty-week intervals between the classes, regular promotions being made twice a year. When two sections twenty weeks apart recite in the same room to the same teacher, transfers from the lower to the higher divisions are said to be comparatively easy to make. Sometimes the classes, especially when they are large, are separated into two or more divisions, making the intervals between the divisions only ten or twelve weeks. This arrangement is not unlike that which is made in several cities and towns by which all the pupils are divided

into small sections according to attainments, with provision for promotions at the end of eight, ten or twelve weeks. There are some differences in the details of plans followed, but in general the principle recognized is the same, which is to make as short intervals between the classes as possible, with frequent promotions. This principle was applied in the classification of the elementary schools of St. Louis, twenty-five years ago, under the direction of Dr. Harris, now Commissioner of Education. In his report of 1871-72 Dr. Harris thus describes the plan as directed by him : —

The principle is clearly this : not a procrustean bed of grades, on which the school is to be stretched so as to reduce the number of grades of advancement to ten or any other special number, but a thorough classification of all the pupils into classes on a certain quota as a basis, whether this be thirty or twenty-five, or whatever other number is considered the best. The endeavor will be to have the classes separated by as small an interval as possible ; but four, six or even ten weeks' work is small enough for all practical purposes ; and, in order to make this arrangement uniform, the pupils in the upper grades, when too few to form classes with the required quota, should be brought together in central schools. If the highest grade in the high school consisted of sixty pupils or more, the division of it into two classes would be required.

This process of continual readjustment of classification in our schools will render the whole system elastic and mobile. Like the current of a river, there will be everywhere forward motion ; in the middle the current is more rapid, at the sides the current flows more slowly. The work of the grade laid down for a year's study will be accomplished in three or three and a half quarters by the brightest ; by the dullest and slowest, in five quarters. There will be no temptation to push on a slow pupil or drag him beyond his powers ; no temptation to promote a pupil to a new grade's work before thoroughly completing what is below his.

To the possible objection that may be urged against the plan, Dr. Harris writes as follows : —

There may be some points on which doubts may rest. For example, it may be urged that this system would cause a collection of dull and stupid pupils into classes by themselves, — a deplorable result. But this is one of the evils which this system is adapted to correct. The

fact that the best pupils from below are allowed to rise through the masses above them as fast as their ability can carry them is surely not likely to prevent the slower pupils, who are their companions, from exerting all their energies and making considerable progress. The stream of bright pupils from below is inexhaustible. From the primary grades it ascends, continually passing fixed points or points that move on more slowly. In every class there will be its quota of bright pupils, some leading the class and some just sustaining themselves in it, having recently joined it. But in the old system all the bright pupils had attained the top of the class, and the dull ones had fallen hopelessly to the bottom long before the needed reclassification took place.

Another may urge that this system causes so rapid a change from teacher to teacher that the very important personal influence of the teacher is materially impaired. But under this system in the higher grades the pupil would hardly change teachers oftener than once or twice a year, and a change as often as this is desirable for the healthy individual culture of the child. The school should not be a family influence exclusively. It is the transition to civil society; consequently, the pupil must change teachers often enough to correct any one-sided tendencies of social culture that he may be liable to acquire from the individual teacher. For it must be remembered that reclassification of a whole school of seven hundred pupils, distributed through twelve rooms, does not imply a change of teachers on the part of more than one sixth of the pupils, even when one third of the best pupils in each class are promoted to the next higher. Each teacher, having two classes (or in the lower grades three classes), will have one third of the pupils from her advanced class promoted to the lower class in the next room above. She will likewise receive from the next room below one third of the pupils from the advanced class there. In her own room, one third of the pupils will be promoted from her second to her first class, but will still remain under the same teacher. In fact, she will have promoted to the next room one sixth of her pupils, and have received one sixth from the next lower room, — that is to say, one third is promoted from each class; but practically this is the maximum, and in ordinary cases a less proportion of the class will be transferred. If reclassification is instituted four times per year, and on each occasion one sixth of the pupils are promoted to the next room, it will follow that each pupil will be taught one year and a half by the same teacher. But, as frequent transfer is necessary in some schools, to make up for the depletion of pupils in the higher grades, it will happen that this period will be reduced one half or two thirds.

The question is likely to arise: Do these pupils who are promoted from one class to the next omit that portion of their studies gone over in the interval of time between the two classes? It is expected that this will be taken up by a review of the ground embraced in the mentioned interval.

Of the cities in this country which have adopted this plan in whole or in part, Dayton, O., may be mentioned as a conspicuous example. Of the plan in Dayton, Superintendent White writes:—

The aim is to have from thirty to thirty-five pupils in each room. The work is assigned for the year by grades. The pupils of each grade are assigned to rooms, as before stated, commencing with the one having the highest standing, and so on down to the end. In districts where there are several rooms of the same grade it makes classification very close, and enables the teacher to present the work to each class in such a manner as to be within the comprehension of each individual child. Each of these rooms is again divided into two classes, according to standing, and the work is presented to the two groups separately. When the work for the ensuing year is completed, the pupils of any group, or any particular pupil in the group, may be advanced to the next higher grade at any time within the year.

We are trying to preserve the class organization and retain the benefits of class instruction at the same time that we are utilizing the individual instruction of pupils.

Our teachers, principals, patrons, pupils and Board of Education take kindly to the new arrangement, and the work of the schools is perhaps more harmonious than it has ever been in its history. This arrangement takes closer and more methodical supervision, and a great deal of patient, skilful work on the part of those in authority, but we anticipate for it very gratifying results.

It is asserted by some that this plan is only adapted to the schools of large cities or to schools of large size. Two cities of small size report that they are following the plan essentially with success, — Le Mars, Ia., and Centralia, Ill. Of the work in Le Mars, Superintendent Coleman writes:—

Our class intervals are short. In the primaries they are from six to eight weeks, in the grammar grades from eight to twelve. At

intervals varying somewhat each class is reviewed back to the next lower class ; but all pupils *very* strong in the work, as indicated by the recommendation of the teacher, are excused from said review, and are promoted to the class that reviews to meet them. Our rate of progress between these reviews is determined largely by the ability of the stronger members of the class, as we expect the others to review soon. This is our sixth year on this plan, and we find an increasingly large number of pupils ready for the promotions.

We have admitted three classes into our high school this year, one in September, one the first of November and one in December. There are forty-nine pupils in these three classes, and *five* of them took ten years to complete their preparation for the high school ; *five* took nine years ; *eight* took eight years ; *thirteen* took seven years ; *fifteen* took six years ; *two* took five years ; and *one* took four years.

In the Centralia schools four hundred and twenty-five pupils, or over thirty per cent., out of thirteen hundred and seventy-four, the whole number belonging, were promoted out of course last year. Of the plan pursued Superintendent Mather says :—

Our system of promotion has to do largely with the individual pupil. Each grade is divided into A and B sections. No grade in the system is more than six weeks, or seven, beyond the next lower. When a pupil, in the judgment of the teachers, is able to do the work of the grade beyond, he is promoted to it. With my strong teachers, those of good judgment, I permit the recommendation to take the place of an examination. Every month and many times every week pupils are promoted. By keeping the grades thus far apart the school is not disorganized, and sufficient encouragement is given to all pupils.

Thus far I have given somewhat in detail the plans of grading and promotion culled from letters and reports which are in actual operation in this country. They express in forcible terms the feeling of opposition quite generally felt in progressive centres to the lock-step marching by platoons from grade to grade, which still characterizes the practice of grading and promotions in many schools of both hemispheres.

In all the examples given there is doubtless much that is good. It is evident, owing to varied circumstances, that no

one plan is suited to all places ; and yet it is possible to select certain common elements of excellence, and from them derive some principles of value to all who are seeking to solve the difficult problem of making such grading and promotions as will give individual pupils the largest measure of opportunity. To these principles I will add some conclusions of my own, based upon experience and observation, and upon opinions from trustworthy sources.

1. First as to length of intervals between the classes. It is significant, that although in my recent inquiry only about one third of the places reported shorter intervals than one year, and in the investigation made by Commissioner Harris in 1893 the proportion of places having short intervals was but a little greater, the opinions of superintendents as shown in the latter investigation very generally favored the shorter interval ; only sixty-five out of four hundred and sixty-five reporting as being in favor of the one-year interval. I place, therefore, first, among the principles of grading, the making of as short intervals between the classes as circumstances will permit. In a collection of children numbering one hundred or more the graduation should be of such a kind as to permit intervals of one half year or less in at least two branches of study ; and where the number of children is more than two hundred, such intervals may profitably exist in nearly all the required studies. Where the numbers warrant it, as in buildings having four hundred or more pupils, the intervals should be nine or ten weeks in all subjects, and may be less than that in some subjects. Where the number of pupils covering the entire course must be placed under the charge of two teachers, their distribution will depend upon circumstances, such as the relative number of advanced pupils, number of beginners, etc. But generally it may be said that a little more than half of the work usually assigned to the course should be given to the primary teacher, and the rest to the grammar school teacher. An arrangement of classes in both rooms should be made by which the intervals are less than one year between classes in sequential subjects, like reading and number in the lower grades and arithmetic and grammar in the upper grades. With such classification pupils should be permitted to recite in an advanced division in

any one or two subjects, whenever they show ability to do the work of that division, with a view of working up into a higher grade in all subjects.

2. Where the work of one teacher must cover the entire course, close gradation in all subjects should be avoided. The pupils may be heard together or in two or three divisions in all subjects whose parts are not closely dependent, like language, nature study, geography and history. In other subjects, as arithmetic, grammar and some parts of reading, the school should be divided into four or more divisions. Pupils should be permitted to recite in any division or in any subject in which they can do the most for themselves, and be permitted to pass from one division to another whenever they show that it is for their advantage to do so. The more advanced divisions in some subjects may be heard two or three times a week, with correspondingly long lessons assigned if they are full-time subjects. The number of daily recitations in rural schools will depend upon circumstances, but should not exceed twenty.

3. The course of studies as far as possible should be made so as to assist the teacher in adapting the work assigned and called for to the abilities of all pupils in every class. This can be done by designating important or principal features which must be taken by all for a proper understanding of the subjects, and by suggesting supplementary work that may be done profitably by pupils after they have acquired the necessary portions, and while they are waiting for others who have not acquired them.

4. Regular times of grade or class promotions are desirable with special arrangements for the promotion of individual pupils or of sections of pupils whenever they show their ability to perform the work of a subsequent grade. A specific plan for irregular as well as for regular promotions should be made and carried out by the principal or superintendent. As a rule, merely general directions or a reliance upon the judgment of the teachers to promote pupils out of course is not sufficient to meet the requirements of all cases.

5. "Double promotions," where the intervals between the classes are one year or more, or where there is no arrangement



by which the work in sequential subjects of all grades is covered, may be a benefit to some pupils in the saving of time, but are likely to be attended with dangers that do not offset the benefit gained. If the course of studies is what it should be, there is, in "skipping" a portion of the work, a loss which cannot be easily made up.

6. Pupils should not be heard in recitation together in all subjects, but should be separated into two or more divisions, one division of pupils being given an opportunity for study while others are reciting. In some exercises all the pupils of a grade may recite together, as in penmanship, and some kinds of language and nature study in the lower grades, and in some forms of written and oral reviews in the upper grades. In some subjects, like arithmetic and grammar, at least three divisions of a class may with profit be made. In large buildings the divisions may be distributed in the rooms on the basis of those subjects in which the shorter interval is made; that is, two or three divisions in arithmetic, constituting one class or grade, may be placed together in one room.

7. Promotions from grade to grade should not depend upon examinations made by a person other than the class teacher. In general, the class teacher should determine the promotion or non-promotion of all pupils whose ability or non-ability to perform the work of the subsequent grade is unquestioned by her. The place of all other pupils should be determined by the principal or superintendent, by means of examinations and such other evidence of their ability and needs as is attainable.

8. Provision should be made in the course of studies for reviews at such times and in such subjects as will permit rapidly advancing pupils to lose no part of the work outlined in the course.

9. Wherever it can be done, the help of one or more assistant teachers should be secured, whose special work will be to give assistance to backward pupils, or to pupils who are endeavoring to work up into a higher division or grade.

10. For the purpose of knowing the characteristics and needs of individual pupils, a teacher should be in charge of the same class of pupils for at least one year. In some cases, where pupils are promoted out of course from one room to

another, the time of such pupils with one teacher might be less than a year.

11. Although the number of pupils to a teacher has not been a special object of inquiry in this investigation, it has been brought out incidentally that attention to the needs of individual pupils demands that in no case should there be more than forty pupils to a teacher; and that, where the ages and attainments of pupils are widely different, as in so-called ungraded schools, no teacher should have more than twenty-five pupils.

JOHN T. PRINCE.

JAN. 1, 1898.

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REPORT OF G. T. FLETCHER,  
AGENT OF THE BOARD.

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# REPORT.

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*To the State Board of Education.*

My work during the year has called me to the following towns and cities: Adams, Alford, Amherst, Ashfield, Barnstable, Becket, Belchertown, Bernardston, Boston, Bridgewater, Buckland, Charlemont, Cheshire, Chester, Chesterfield, Clarksburg, Colrain, Cummington, Dalton, Deerfield, Easthampton, Edgartown, Egremont, Enfield, Erving, Fitchburg, Florida, Gill, Goshen, Granby, Great Barrington, Greenfield, Greenwich, Hadley, Hancock, Hatfield, Hawley, Heath, Hinsdale, Holyoke, Huntington, Lanesborough, Lee, Lenox, Leverett, Leyden, Monterey, Monroe, Montague, Mount Washington, New Ashford, New Salem, North Adams, Northampton, Northfield, Orange, Otis, Pelham, Peru, Pittsfield, Plainfield, Prescott, Rowe, Salem, Sandisfield, Sheffield, Shelburne, Southampton, South Hadley, Springfield, Stockbridge, Sunderland, Tyringham, Ware, Warwick, Wendell, Westfield, Westhampton, Westminster, Whately, Williamsburg, Williamstown, Windsor, Worcester and Worthington.

In eighty of the towns named schools were visited; in the other towns, outside of the three counties comprising my field of labor, institutes and meetings were attended in return for service rendered by other agents in my section.

It has not been possible to visit the schools in a few towns, for want of time, or because the schools were closed at the time visitation was planned. In country towns, with few schools miles from one another, school visitation is a slow process.

In some towns only two or three schools can be visited in a day, because of long distances, difficult hills and bad roads. The following account of a day's trip will illustrate:—

Last week, in company with the district superintendent, I visited the three schools in the town of Florida, situated on the Hoosac

mountain range. We started from the level of the tunnel and climbed the steep mountain slope, rising eleven hundred feet in a distance of three miles, in one and one-half hours. Our horse could go no faster than a walk, with frequent rests, while one of us had to go on foot most of the way, to lighten the burden of the beast. Several times we had to go through snow drifts four feet deep.

The first school visited had six pupils. There are several more in the district, but attendance is very irregular. The schools are not in session during the winter, weather not permitting traveling to them. We saw but little land that can be profitably cultivated, but the few hardy men who brave the mountain climate have very good farms, dairying being quite a profitable industry. We took dinner with a hard-working, thrifty Irish family, with whom the teacher boards.

The school in this district registered eleven pupils, attendance eight. Near this school we passed the opening of the central shaft of the Hoosac tunnel. Volumes of smoke and steam from the locomotives poured out, having risen ten hundred and forty feet from the tunnel below. We made a circuit of the mountains, visiting the last of the three schools on our way home. We found eight pupils.

All the schools are taught by intelligent young women, who have come to the hills to breathe the invigorating air, see nature in its grandeur, and acquire that "experience in teaching" necessary to secure positions in the city schools. Most of these young women are doing good work. We observed teaching that would be creditable in any school. These teachers receive six dollars a week and their board for their services. The towns are able to pay this sum only by the aid furnished by the State.

From these hill towns have come thousands of the best citizens, not only of Massachusetts, but of the country. The Commonwealth needs many more of the men and women of intelligence that good homes and schools will furnish in the days to come, and the State can no more wisely expend money than in aiding the rural communities to provide the best possible educational advantages.

Visitation of schools enables the agent to ascertain the condition of the buildings and the bearing of such condition upon the promotion of good morals, health and educational progress. The school register indicates the attendance of pupils, and the frequency of visitation by the committee, the superintendent, parents and others. The course of study, daily program, method of teaching and school management are noted. An

examination of classes affords opportunity to test the work of teacher and pupils and to offer suggestions. At the close of a visit, or at a subsequent meeting of the teachers of a town, school work and methods for its improvement are considered.

Visits to the schools are generally made in company with the school committee or the superintendent. The earnest desire manifested by school officials and teachers to make my visits to the schools most helpful has been very gratifying. Invitations to visit the towns have been more frequent than I could accept, for want of sufficient time.

#### TEACHERS' INSTITUTES.

These were held in Charlemont, Cummington, Greenfield, Greenwich, Lee, North Adams, Northampton, Sandisfield and Westfield. One hundred and seventy-three towns were represented by fourteen hundred teachers. The exercises, covering a wide range of topics, were adapted to the works of teachers in all grades of schools. It was thought to be desirable to hold institutes in the normal school buildings. This was done at North Adams and Westfield, with great success.

Many lessons were given by normal school instructors. Note, for instance, the prominence of the North Adams Normal School on the program of the institute held in that city. The co-operation of the normal schools with the institute work of the State is advantageous both to the normal schools and to teachers attending the institutes.

A TEACHERS' INSTITUTE, UNDER THE DIRECTION OF THE STATE BOARD OF EDUCATION, WILL BE HELD IN THE STATE NORMAL SCHOOL BUILDING, NORTH ADAMS, FRIDAY, OCT. 22, 1897.

#### PROGRAM.

- 9.00 A.M. Opening Exercises.  
9.10 A.M. The Essential of Sound Instruction, . . . Prof. JOHN BASCOM,  
*Williams College.*  
10.10 A.M. Interest and Attention, . . . . JOHN T. PRINCE,  
*Agent, State Board of Education.*  
11.10 A.M. Higher Life in Schools, . . . . FRANK F. MURDOCK,  
*Principal, No. Adams Normal School.*

#### HIGH SCHOOL SECTION.

- 1.30 P.M. English Literature and Latin, . . . J. W. MACDONALD,  
*Agent, State Board of Education.*

## GRAMMAR SCHOOL SECTION.

- 1.30 P.M. Experiments illustrating the Teaching of  
Physiology and Geography, . . . ROLAND W. GUSS,  
*No. Adams Normal School.*
- 2.15 P.M. Application of some Geometrical Principles  
to the Teaching of Arithmetic, . . . ANNETTE M. BARTLETT,  
*No. Adams Normal School.*
- 3.00 P.M. Reading in Grammar Schools, . . . CATHERINE W. PARKER,  
*No. Adams Normal School.*

## PRIMARY SECTION.

- 1.30 P.M. Drawing in Primary Schools, . . . MARY A. PEARSON,  
*No. Adams Normal School.*
- 2.15 P.M. The Kindergarten Element in Primary  
Schools, . . . SUSAN S. HARRIMAN,  
*No. Adams Normal School.*
- 3.00 P.M. Sense Training, . . . MR. MURDOCK.

The morning exercises will be of interest and profit to teachers of all grades of schools. Prompt attendance is desired. Dinner can be obtained for thirty-five cents per plate. On Thursday evening, October 21, at 8 o'clock, Rev. A. E. Winship of Boston will give an address in Assembly Hall, Normal School Building. The citizens of North Adams are cordially invited to be present.

FRANK A. HILL,

*Secretary, State Board of Education.*

GRENVILLE T. FLETCHER,

*Agent, State Board of Education.*

I assisted other agents in institutes at Hyannis and Salem.

## COUNTY CONVENTIONS OF TEACHERS.

These were held as follows : —

For Berkshire County, at Pittsfield, Jan. 8, 1897.  
For Franklin County, at Northfield, May 21, 1897.  
For Franklin County, at Greenfield, Oct. 29, 1897.  
For Hampshire County, at Amherst, Oct. 15, 1897.  
Total attendance of teachers, nearly 1,200.

## TEACHERS' MEETINGS.

Many of these have been held for the teachers of one town or for a group of adjoining towns. The exercises consisted of lessons on the various subjects taught in the schools, and conferences upon methods of teaching. School committees or superintendents have been present at these meetings, taking part in the exercises.



## LAUREL PARK INSTITUTE, NORTHAMPTON.

The seventh annual session opened Monday, June 28, and closed Saturday, July 3.

The following topics were presented, in sixty lessons :—

Child Study, . . . . .	WILL S. MONROE, <i>Westfield Normal School.</i>
Duties of School Committees and Superintendents, . . . . .	GEORGE A. WALTON, <i>West Newton.</i>
Drawing, . . . . .	WALTER SARGENT, <i>Assistant State Supervisor of Drawing.</i>
English Literature, . . . . .	JAMES W. MACDONALD, <i>Agent of the Board.</i>
Geography, . . . . .	F. F. MURDOCK, <i>Principal of North Adams Normal School.</i>
Geometry, . . . . .	MR. MACDONALD.
History, . . . . .	I. FREEMAN HALL, <i>Superintendent of Schools, North Adams.</i>
Music, . . . . .	ELIZABETH STEARNS, <i>Supervisor of Music, Springfield.</i>
Nature Study, . . . . .	SARAH E. BRASSILL, <i>Supervisor of Nature Work, Cambridge.</i>
Penmanship, . . . . .	J. C. MOODY, <i>Springfield.</i>
Physiology, . . . . .	MR. MURDOCK.
Primary Work, . . . . .	AMY L. BOYDEN, <i>Worcester Normal School.</i>
Principles of Teaching, . . . . .	MR. HALL.
Reading, . . . . .	MR. HALL.
School Management, . . . . .	G. T. FLETCHER, <i>Agent.</i>
School Work, . . . . .	A. H. CAMPBELL, <i>New Hampshire Normal School.</i>

The great value of an institute a week in length has been fully demonstrated at Laurel Park. The increase in numbers, from an attendance of one hundred teachers in 1891 to a registration of four hundred and sixty-five in 1897, shows the growing appreciation of the work done. Many teachers have been constant attendants during the years since the institute opened, and each session has a larger number of teachers of long experience and marked ability.

To many teachers from the country towns this institute has

been the only means utilized for professional training, and the schools taught by them give evidence of the value of the instruction. For those who cannot attend the normal school, opportunities for still more extended summer school work are needed.

### THE NORMAL SCHOOLS.

I have visited the Bridgewater, Fitchburg, Hyannis, North Adams, Salem and Westfield normal schools. In material, method and spirit, progress is very evident. From Westfield and North Adams western Massachusetts anticipates an influence that will greatly improve the public schools.

Two conditions are essential to the mutual advantage of counties and normal schools. From the four western counties large numbers of the most intelligent, earnest young men and women should come to the normal schools for training, and they should return in large numbers for a few years at least, to teach in the hill towns and cities. To this end conditions of admission to the normal schools should be based upon such preparation as these promising young persons from the rural towns can offer.

Many successful teachers in rural and in graded schools have not had the advantage of a high school course, and their age and means forbid taking a four years' course with boys and girls in some high school, as a preparation for entrance to a normal school. The knowledge of subjects and methods gained during years of experience in teaching, the maturity of mind that comes to individuals who have entered the third decade of life's duration, and, more than all else, the desire for knowledge and power that comes to those who feel their needs because of the tests and trials that experience in the school room has brought, certainly fit such persons to enter a normal school.

The authorities will do well to regard such preparation, for some years at least, as an "equivalent" for the high school course which all persons below the age of admission to normal schools should be required to take.

With judicious conditions of admission to the normal schools, the influence of agents of the board, school committees and superintendents in recommending attendance, and the payment

of good salaries to teachers in country schools, the end for which normal schools were established will be attained.

The normal schools must come into closer touch with the rural schools. An extract from the able report of the committee of twelve is suggestive in this connection :—

The sole purpose of Horace Mann in the establishment of the first State normal school in Massachusetts was to elevate the common schools of the country. The normal school course, at first simple and adapted to the conditions it was designed to meet, developed to keep pace with the school system, and gradually drew away from the rural school.

The normal school is often removed still further from those who would teach in rural schools by the tendency to raise the standard of admission to the requirements of a high school course.

The fact that most of the towns of the state have high schools is no assurance that all those who will teach rural schools can go through a high school course of three or four years and then through a normal school course of two or three years.

Great care should be taken that the normal school does not get too far from those whom it was especially set to serve. There is needed a careful determination of the qualities and attainments requisite for entrance upon the work of preparation for teaching.

These are sometimes given in larger measure by the experience and responsibilities of country life than by the city high school, and with these every added step in education is great gain.

Many years ago Miss Stickney opened a training school for teachers in Boston, that young women who had completed the city high school course might prepare to teach. Miss Stickney admitted some young women from country towns, educated in rural schools. From time to time Boston masters called upon the training school for substitutes in the grammar schools. Success in these temporary positions was often a cause of permanent employment in the city schools, and the country girls were preferred. Miss Stickney gave as a reason the fact that those from rural schools had been in constant touch with the teaching of classes above and below them during their entire course; while the high school girls had forgotten much of their primary and grammar school instruction and the methods of teaching, upon completion of a four years' high school course.

If there are some advantages in coming to the normal

school from learning and teaching in rural schools, there are also advantages in teaching in country towns after graduation.

The element of *obligation* should not be overlooked. The rural population is taxed to support the normal schools. It needs better schools, and has the right to expect them. The city schools may offer higher wages and graded schools; but living costs less in the country, and there is pleasure and profit in teaching a variety of subjects, and in the opportunity for individual instruction and growth. The rural school is a good place for the development of teaching and managing power. In some way the influence of the normal schools should be felt as soon as possible in the rural communities.

Admission of the brightest teachers, with limited pecuniary means, for a term or a year, allowing them to teach a year and then to return to the normal school, would be of present advantage to the country schools.

If the normal schools should offer a vacation course during a part of July and August, it would meet the means and needs of many country teachers, and prove a benefit to the schools.

#### RURAL SCHOOLS.

I have said much about them in the discussion of previous topics, but other points need to be considered. There are ninety-five towns in the State having a population under one thousand (report of the Board of Education for 1895-96). These towns may be regarded as rural. They have in the aggregate 509 schools. A few of these are graded, but a much larger number of schools in towns having a population above one thousand are rural, so that we may safely estimate the whole number of such schools as about a thousand.

These schools still offer problems for solution. Adverse conditions must be taken into consideration. In many cases there must be a larger number of pupils in a school to make it interesting and profitable. Conveyance of pupils to another part of the town, where several small schools can be combined, offers the only possible solution of the quantity element in the making of a good school. But the expense of transportation and the difficulty of it in towns of large area and poor roads, blocked in winter and rough in summer, with long, steep hills to climb, make it impossible to increase the size and lessen the

number of schools in some towns. In other towns a union of schools has been attended with excellent results.

Good schoolhouses and appliances are needed. These are much more common than a few years ago. Out-buildings have been improved, but in some towns conditions are still detrimental to health and morals.

*Good Teachers.* — Short terms and low wages have been unfavorable to school improvement through a better teaching force, but conditions are now much more favorable for obtaining and retaining good teachers.

The towns that raise more money than formerly for school purposes receive, as a result, a larger portion of the income of the school fund, and in twenty towns of Western Massachusetts State aid has been received under the provision of the law granting two dollars a week to teachers of exceptional ability.

Supervision by superintendents has done much to improve the schools by insuring the selection of better teachers and a critical oversight of school work. Thirty-eight towns in the four western counties are still without special superintendence.

#### SPECIAL VALUE OF RURAL SCHOOLS.

*Location.* — They are the only schools possible in some sections of the Commonwealth. It is said that at the beginning of this century more than ninety per cent. of all the public schools in this country were rural, and that as late as 1850 eighty per cent. were of that class. Of the men now living, past the middle age of life, nearly all received their early education in the country school.

*Influence.* — The rural school throws the pupil upon his own resources, in a measure. He must get much of his information from the study of books, his discipline of mind from independent thinking. If industrious, he may acquire the fundamentals of a good education. But these results are seldom secured, unless the school is in charge of a teacher who can direct the pupils in their studies and maintain good discipline.

*Environment.* — This is nature, often in its most striking aspects of ocean or mountain, of hills, rivers and forests. The three typical forms of industry — farming, trading and constructing — are within observation and experience. The affairs

of home, church, State and nation are under discussion at the fireside or in the weekly paper. Some manual labor in house or barn, field or forest, tends to the development of muscle and the formation of habits of industry.

*Period of Decay.* — The development of manufacturing and commercial interests increased the number of cities and large towns with all the special advantages that population and wealth bring. Rural communities contributed men and money to this growth at the sacrifice of their own prosperity, almost of their existence; hence schools became small, few and poor.

*Revival.* — Within the last ten years there has been some appreciation in population and property among the hill towns, though a few of these towns are still on the decline.

*Combination of Schools.* — More money by taxation for educational purposes, with State aid for teaching and superintendence, has contributed to improvement; but only a beginning of better times is yet manifest.

*Defects.* — An examination of school registers shows irregular attendance in many schools, though some have an excellent record. New Ashford, with only one school and conditions favorable for conveyance of pupils, shows an absence record during one term of over sixteen per cent. of the whole time. In most cases there is no good reason why the attendance should not be better. If teachers, parents and school officials combined heartily, good results in attendance and instruction would appear.

*Classification of Pupils.* — While there is nominally a course of study with some attempt at classification, there is a serious lack of system in school work. Rural schools cannot be closely graded, but the number of classes can be reduced. The small school offers opportunities for individual instruction that may be of great value.

Some pupils need much aid because of dulness or lack of privileges; others, who are exceptionally bright, will make great progress with the instruction of a teacher able and willing to help them to advance. Pupils from our best country schools have entered academies and high schools to stand at the head of classes. Broader and more accurate scholarship, better methods as a result of training, study and experience are needed on the part of teachers to secure the best possible re-

sults in the schools. The habit of attention that will enable a pupil to concentrate thought upon an object or upon the presentation of a subject in a book, is worth more educationally than acquired knowledge. More and better work by the pupils at their desks is greatly needed, and it may be wisely supplemented by home study and reading during the long winter evenings.

Tests given in various subjects in the schools show that processes and principles are not, generally, so well understood as is essential to progress. Independent thinking, neat and accurate doing, clear and forceful expression, need cultivating.

### GRADED SCHOOLS.

In the cities and larger towns the graded system of schools prevails, though a few rural schools still exist in their borders. These cities and towns, with some exceptions, are under skilled supervision. They generally employ normal school graduates or teachers of successful experience.

The tendency of the times to add to the course of study new branches greatly increases the work of the teachers and of the pupils. Time for study and thought is needed for the acquisition of valuable knowledge and for the development of power. Any conditions that lead to superficial results are baneful. So much must be accomplished to meet tests and to secure promotion that teachers are tempted to tell pupils more than is for their profit, and to recite for them in the class to "save time." Ability to do and fluency to express many things are products of the system, but to what extent thought power is developed is a question for serious consideration. In many respects the methods and results of the schools are excellent.

### DRAWING AND NATURE WORK.

During the year considerable work has been accomplished in these lines in towns employing special teachers, and in other towns in which the regular teachers are able to give instruction in these branches; but in most of the rural communities no progress has been made for lack of sufficient State appropriation for supervision of the work.

### MUSIC IN SCHOOL.

This most important subject has received marked attention in many schools, and the results are gratifying.

### MANUAL TRAINING.

Very limited advancement can be recorded. Sewing is taught in a few schools, and knife work has been introduced in Greenfield, under the direction of a special teacher.

### THE LIBRARY AND THE SCHOOL.

Aid granted by the State has made it possible for every town to have a library, and as an auxiliary to the school its value is being recognized. Through trustees and librarian, by the advice of wise parents and judicious teachers, books interesting and valuable to children may be placed in the loan library for use in the schools under proper regulations. The reading, as to quantity and quality, must be properly directed, and be followed by such tests as will indicate the results. Many towns are now wisely utilizing the library for educational purposes. Let the good work go on.

### STATE AID.

With the aid that comes to the small towns from the State through the school fund, the reimbursement of high school tuition, the payment of half the salary of a superintendent of schools, as well as of certain amounts on account of teachers' salaries, there is no valid excuse for poor schools in most of the small towns of the State. Longer terms and better teaching are encouraging signs of improvement.

It is now possible to solve many rural school problems in this way. Distribute the income of the school fund according to the needs of the town, and make further provision to have it used to the best advantage for the schools. In 1896 the town of New Ashford received from the fund one hundred and fifteen per cent. of the whole amount raised by the town for school purposes, while Hawley received only thirty-five per cent. Require the towns to reduce the number of schools so far as is possible and desirable, and to unite with other towns to employ a superintendent of schools.



It seems desirable that a more uniform percentage of taxation for the support of schools should be required. In 1897 the rate varied from thirty-one hundredths of a mill on a dollar of valuation in Gosnold, to nine and twenty-one hundredths mills on a dollar in Tyngsborough. Towns should do all that is possible for their schools; but some are now doing very little, while others are bearing heavy burdens. To supplement effort wisely made by the towns, let the State give such aid as will enable all the towns to employ good teachers, and the rural school problem will be solved, so far as money can solve it.

#### SUPERVISION.

Montague and Rowe were added to the list of towns in Franklin County under superintendence of schools last spring. Other towns are ready to join in forming districts, if satisfactory grouping can be made. If the Legislature this year is not favorable to compulsory superintendence for the State, the voluntary plan should be extended to allow towns having a valuation above \$2,500,000 to unite with towns below that limit, smaller towns to receive State aid as at present in district supervision. By such a provision six unions can be formed in western Massachusetts to the great advantage of the larger and the smaller towns.

#### SCHOOL BUILDINGS.

In expenditures for new buildings and for repairs on old, Berkshire is the banner county. North Adams has expended for the year \$200,000 for new houses, and \$3,000 for repairs. Williamstown has built a new high schoolhouse, at an expense of \$30,000. Pittsfield has expended about \$57,000 in the completion of schoolhouses. Great Barrington has erected a fine new high school building at a cost of \$80,000.

In Hampden County, Westfield has expended \$20,000, and Springfield \$185,250 on school buildings.

GRENVILLE T. FLETCHER,

*Agent.*



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REPORT OF HENRY T. BAILEY,  
AGENT FOR THE PROMOTION  
OF  
INDUSTRIAL DRAWING.

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Plate I.

## REPORT.

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*To the Board of Education.*

Upon several different occasions during the past year your "agent for the promotion of industrial drawing" has been asked to define the term "industrial drawing," as used in the Public Statutes, and to specify what topics of instruction may properly be included under that head. Whatever the exact dictionary meaning of the words may be, a reference to the documents preserved in the reports of the Board, which reflect the thought of those men whose efforts brought about "the act of 1870," is sufficient to show that a liberal interpretation of the words is not only allowable but imperative. The petitioners of June, 1869, said to the Legislature: "Every branch of manufacture in which the citizens of Massachusetts are engaged requires, in the details and processes connected with it, some knowledge of drawing and other arts of design . . . therefore we ask . . . for schools for drawing or instruction in drawing." Evidently industrial drawing meant, in their thought, that sort of delineation by means of lines, tones or colors which would lead to a better knowledge of details and processes in every branch of manufacture. It includes, then, both mechanical and freehand outline drawing, light and shade, and color, from both artificial and natural objects, — including the human figure, — and structural, decorative and pictorial design. This may seem, at first, too broad an interpretation; but when one considers the scope of modern manufacture, it becomes evident that nothing included in the above statement can be eliminated as irrelevant. Whether a given exercise has an industrial bearing or not, depends upon its motive. Drawing from a landscape in color, or from the human figure, may have no direct industrial bearing in the thought of the landscape artist or the portrait painter; but such exercises are intimately

related to the industrial arts in the thought of the illustrator and the designer.

In a still broader sense, any exercise which tends to develop a finer perception of beauty, a more discriminating taste, has an industrial value, as Dr. William T. Harris has been teaching us for ten years, — a lesson the average taxpayer finds difficult of comprehension. That this larger view is more widely received than ever before in this country, is evinced by the movement for schoolroom decoration, for school collections of fine examples of applied art, photographs and facsimile reproductions of artists' work, — in short, for a more beautiful school life.

The movement for schoolroom decoration began in this State, with Charles C. Perkins and John D. Philbrick, so long ago as 1870; but not until 1892 did it attract public attention. Early in that year Mr. Ross Turner began to advocate more beautiful schoolrooms, and adding to his words the force of a concrete illustration in the Phillips school, Salem, won for the cause wide recognition and for himself the title "Father of schoolroom decoration." Replies to a special circular of inquiry issued recently and brought together in the following table, which is as complete as the returns permit, clearly show that in this State the spirit of decoration has not been confined to a few wealthy towns:—



*Schoolroom Decoration in Massachusetts, Dec. 31, 1897.*

TOWN.	School having Most Satisfactory Collection.	Num-ber of Works.	Approximate Cost.	How the Funds were secured.	Other Schools in Town having a Fair Collection.
Adams, .	High, .	29	\$250	Entertainment and private subscription,	-
Amesbury, .	High, .	7	80	Contributions of pupils, .	Whittier.
Andover, .	Stowe, .	16	50	Entertainments, .	John Dove.
Arlington, .	High, .	35	300	Entertainments and contributions,	Crosby, Russell, Lake, Cutter.
Athol, .	High, .	12	-	Graduating classes, .	Lakeside, Highland.
Attleborough, .	High, .	25	30	Contribution, .	Sanford Street.
Berlin, .	South, .	19	-	-	Centre.
Beverly, .	Briscoe, .	54	150	Lectures and gifts, .	-
Boston, .	Agassiz, .	33	150	Through efforts of principal, .	Girls' High, Brighton High, Gilbert Stuart.
Brookline, .	Union, .	-	1,600	Subscriptions through the children,	High.
Cambridge, .	High, .	-	1,000	Gifts of citizens, .	Lawrence, Lincoln, Edward Devotion.
Clinton, .	Morse, .	-	-	Gifts of Mr. Morse, .	Allston, Harvard, Webster, Wellington and others.
Concord, .	High, .	-	-	Graduating classes, .	-
Easton, .	No. 7, .	10	-	Contributions, .	-
Easthampton, .	High, .	17	100	Entertainments and gifts, .	-
Everett, .	Devens, .	56	125	Graduating classes, .	-
Fitchburg, .	Day Street, .	4	250	Through the principal, .	Glendale.
Gardner, .	High, .	7	50	Private subscription, .	High.
Grafton, .	High, .	60	35	Graduating classes, .	-
Greenfield, .	High, .	40	200	Contribution, .	-
Haverhill, .	High, .	20	400	Graduating classes and town,	Pierce Street.
Hingham, .	West, .	-	250	Alumni association, .	Crowell.
Holyoke, .	Appleton Street, .	15	1,500	Private gift, .	High, Elm Street, Fort Hill.
Hopedale, .	High, .	-	100	Through the principal, .	Hamilton Street.
				Gifts, .	-

*Schoolroom Decoration in Massachusetts, Dec. 31, 1897 — Concluded.*

Town.	School having Most Satisfactory Collection.	Number of Works.	Approximate Cost.	How the Funds were secured.	Other Schools in Town having a Fair Collection.
Ipswich, . . .	Manning, . . .	50	-	Contributions and town, . . .	Winthrop.
Leicester, . . .	Cherry Valley, . . .	20	\$45	Entertainments, . . .	Centre.
Leominster, . . .	Hancock, . . .	-	175	Contributions and town, . . .	All the schools.*
Lowell, . . .	Moody, . . .	26	-	Gifts, . . .	High.
Lynn, . . .	Whiting, . . .	-	-	Through the principal, . . .	-
		-	-	Subscription, . . .	-
Malden, . . .	High, . . .	50	450	Alumni association, . . .	Faulkner, Centre.
Mansfield, . . .	Central, . . .	29	70	Contributions and town, . . .	-
Marlborough, . . .	Pleasant Street, . . .	-	-	Gifts, . . .	-
Medford, . . .	High, . . .	-	2,000	Subscription, . . .	-
Methuen, . . .	High, . . .	-	70	Gifts, . . .	-
Milton, . . .	West, . . .	8	-	Mrs. Roger Wolcott, . . .	Pleasant Street, South, Mattapan.
		-	-		
North Adams, . . .	Drury Academy, . . .	-	75	Town, . . .	-
Northampton, . . .	-	-	-	Contributions, . . .	Bridge Street, Central, South, Florence, Leeds.
North Andover, . . .	Johnson, . . .	12	-	Subscriptions, . . .	West, Grammar, High.
Northborough, . . .	Center, . . .	-	-	Gifts, . . .	High, Williams, Wade, Mason.
Newton, . . .	Bigelow, . . .	12	200		-
		-	-		-
Plymouth, . . .	High, . . .	13	100	Gifts, . . .	-
Princeton, . . .	Goodnow Memorial, . . .	10	60	Private gift, . . .	-
Provincetown, . . .	Governor Bradford, . . .	-	100	Gifts, . . .	All the schools.*
Quincy, . . .	Wollaston, . . .	50	700	Private subscription, . . .	John Hancock, Adams, Lincoln, High.
Reading, . . .	High, . . .	25	400	Graduating classes, . . .	Highland.
Salem, . . .	Phillips, . . .	-	-	Through Mr. Ross Turner, . . .	Five grammar buildings
Scituate, . . .	Hatherly, . . .	12	50	An art exhibit and gifts, . . .	-
Sheffield, . . .	-	-	100	Through efforts of Mrs. B. J. Tice, . . .	All the schools.*
Somerville, . . .	Hanscom, . . .	-	100	Gift of Dr. Hanscom, . . .	High and others.
Southborough, . . .	High, . . .	-	-	Gifts, . . .	Fayville.

Springfield,	Buckingham,	50	700	Subscription,	Glendale, Curtisville, North.
Stockbridge,	Union,	—	100	Gifts and contributions,	Drake.
Stoughton,	Clapp,	9	60	Alumni association,	All the schools.*
Swampscott,	Phillips,	70	600	Gifts,	—
Uxbridge,	High,	6	100	Graduating classes,	Lincoln, Warren.
Wakefield,	High,	26	250	Graduating classes,	All the schools.*
Waltham,	High,	30	350	Graduating classes,	—
Ware,	High,	34	—	Gifts,	Spring, Grant, Phillips, Coolidge.
Watertown,	Francis,	24	150	“Young Men's Assembly” and contri- butions,	—
Wayland,	Centre,	12	—	Gifts,	—
Webster,	High,	18	100	Graduating classes,	All the schools.*
Wellesley,	High,	30	200	Gifts,	Milk Street.
West Brookfield,	High,	—	40	Entertainments,	Prospect Hill, Green, Court Street, Franklin Street.
Westfield,	High,	45	300	Gifts and entertainments,	—
West Springfield,	High,	38	275	Fair and entertainment,	—
Whitman,	High,	7	50	—	Murdock.
Winchendon,	The Brick,	15	100	Gifts,	Several buildings.*
Worcester,	—	113	—	Public School Art League,	Grammar.
Yarmouth,	High,	—	—	Gifts of Simpkins family,	

\* To some extent; a few rooms, or a few works of art, in each.

From this list it appears that seventy-one cities and towns, at least, have done something, at a total estimated cost of from fifteen to twenty thousand dollars. In the lists of the works of art already introduced, portraits of American authors and of Washington and Lincoln are very prominent; the standard masterpieces, like the Aurora and the Sistine Madonna, are to be found in almost every list; a large majority include photographs or prints of such famous buildings as the Parthenon, the Colisseum, and Cologne, or some other, cathedral. Probably the city of Cambridge leads in the number of school buildings decorated with really good things. The finest single collections are to be found in Boston, Brookline, Cambridge, Holyoke, Medford, Quincy and Springfield.

The returns make evident the fact that so far the cities and towns have done almost nothing officially. Some of the State normal schools, though not included in these returns, have made an excellent beginning in fine art decoration.

Amid our enthusiasm for schoolroom decoration, it might be well for us to remember that, as it is impossible for us, as Ruskin says, to paint or sing ourselves into good men, so it is impossible for us in the presence of works of art to gaze or gush ourselves into people of taste. That the influence of environment is irresistible, no one can doubt in these days, with Charles Darwin speaking in one ear and Henri Taine reading his lectures on art in the other; but environment does not make the artist, nor even an art appreciator. When Emerson ascends Monadnock with eyes "feeding on magnificence," he recalls tales of many a famous mount, and expects there also to find patriots, scholars, bards and saints.

"Happy," I said, "whose home is here!  
Fair fortunes to the mountaineer!  
Boon Nature to his poorest shed  
Has royal pleasure-grounds outspread."  
Intent, I searched the region round,  
And in low hut the dweller found:  
Woe is me for my hope's downfall!  
Is yonder squalid peasant all  
That this proud nursery can breed  
For God's vicegerency and stead?

From our "American wilderness" people go to Italy for a few months to refresh their souls with the marvellous beauties

of the Italian landscape and the priceless treasures of Italian art. But, returning, they bring with them swarms of those who have lived all their lives in Italy, to dig reservoirs and lay railroads for us! What we get from nature or art depends upon what we bring to them. "The mind that sees only color — sense or sense-perception — is different from the mind that sees beauty, the self-conscious spirit."\* "The crying need is æsthetic education, — the cultivation of taste; the acquirement of knowledge on the subject of the origin of the idea of beauty (both its historic origin and the philosophical account of its source in human nature); the practice of producing the outlines of the beautiful by the arts of drawing, painting and modeling; the criticism of works of art, with a view to discover readily the causes of failure or of success in æsthetic effects."† To bring about *intelligent appreciation* of works of art is the problem, — not merely to bring about works of art.

The recognition of this "crying need" has led to the publication of such books as "How to judge a Picture" and "Art for Art's Sake," by Henry C. Van Dyke, and to the introduction of the study of pictures into schools.

While an appreciation of the deeper suggestion and intention of a work of art cannot be had without knowledge of the artist himself, it is necessary at the outset to discriminate sharply between study about pictures, which may result in erudition, and the study of pictures, which can develop taste. One has to do with art history, the other with art itself. The first should be merely incidental in the lower grades; the second is of prime importance throughout.

In my report of last year a thoughtfully selected list of typical pictures was given, together with my reasons for their selection and arrangement. This list has been adopted by so many as a basis for study, a more elaborate presentation of its plan may prove helpful.

The pictures chosen for the primary pupils are such as appeal to children, — pictures of animal and child life, of happy incident and mother love; yet they are representative of the three great realms of pictorial art, — the physical the intel-

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\* Bernard Bosanquet, in "The Introduction to Hegel's Philosophy of Fine Art."

† Dr. W. T. Harris, in "Art Education the True Industrial Education."

lectual and the spiritual, — illustrate great diversity of handling from the most literal rendering of details to vague suggestiveness, and show the work of as many different artists as possible.

The aim at first is to lead the children to form the habit of observing pictures attentively, — to read a picture for its story. Well-directed questions will soon open the children's eyes to see that everything in the picture helps to tell the story the artist wants them to know. As an illustration, take the well-known picture called "The Holy Night," by Correggio (Plate I.). What can you see in this picture? Can you find the shepherd's dog? Is there another animal in the picture beside this one and the ass? What has the woman in one hand? What is in the basket? Why did she bring such a queer bit of luggage? When was Jesus born? Is it past midnight now? How do you know? Where is the lightest part of this picture? Why? Why does the woman lift her hand? Why does the shepherd look so surprised? In one corner of the picture are angels. Why have they come? Why are flowers placed in another corner of the picture? What shows that Mary loves the little Jesus very much? Do you think Correggio has told you the story well? This picture is one of the most famous in the world. Can you guess why? The story of the picture may now be told delightfully by the teacher.

As a further illustration of method, take the picture shown in Plate II. Here are a few suggestive questions: Do you think these people live in America? Is it summer or winter? Is the house old or new? Of what is it built? Are these people rich or poor? What is the mother doing? Can you tell the order in which the children are being fed? Which child is the oldest? Do you suppose the youngest is in the middle? Is there anything in the picture which makes you think little children are the same the world over? Where is the lightest part of the picture? Can you guess why that particular part was made lightest? Why do you like the picture? What does it say to you? Almost every one of these questions should be followed with Why do you think so? or How do you know? or What tells you that? When the children are told that the artist who painted this picture was himself a peasant, that he was one of nine children, that in youth he was often cold and hungry, that



Plate II.





when a famous man he still lived in the country and wore rough clothing and wooden shoes, and that he always loved the peasants and their children, perhaps they will be able to understand more fully why Millet painted these little people sitting in the sun, fed from one bowl with a wooden spoon, by the sad-faced mother; and why he called the picture "Feeding her Birds."

In these lower grades but little written language work is to be expected; but the children can be encouraged to search for pictures which have an evident story told beautifully, and to recognize a few of the world's masterpieces.

Somewhere about the fourth year in school, the artist's manner of telling his story may first be considered, that "the causes of success or failure in æsthetic effects" may begin to be understood.

Although, as Mr. La Farge says, "The thought that makes the work of art, the thought which in its highest expression we call genius, is not reflection or reflective thought," in every work of art law and order appear.

"The contradictions of the world of existence; its overprofusion; its escaping at every point from any fixed comprehension; its suggesting the opposite; its constantly taking in our eyes the appearance of a world of chance, — makes us realize in art another world, which has some rules, some order made to our size, to our reason. In the made-up stories of art all is explained. They come to an end deliberately chosen; every detail is used for some purpose of that very story; and when we close the binding of the book, we really come to an end. It is not so in nature: but in art the end, the meaning is for us; we are the final cause."\*

I. In a single word, a work of art has *unity*, revealing the artist's grasp of the subject as a whole, — his power to subordinate many to one. Contrast for a moment an excellent photograph from nature (Plate III.) and Lerolle's "Shepherdess" (Plate IV.). In the photograph are the team, the bridge and the house, almost equally prominent; the soft evergreen pines, the budding maples, the flowering apple trees are no less interesting than the drinking horse and his broken reflection, or the play of light and shade under the bridge.

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\* John La Farge, in "Considerations on Painting."

Here are two roads leading the eye in different directions, while all the time it is drawn, involuntarily, to investigate that fascinating hole under the road. The woman's face attracts attention; but no more strongly than those windows in the house, some open, some closed, some with curtains and some without. An appropriate title for this view would be "The Wayside Brook," "The Watering Place," "The Home of my Childhood," "The Parting of the Ways," "The Bridge," "The Red Maple," "The Water Drinker," or "Spring," or "Edith" (or whatever her name is!).

But try to think of any other appropriate title for Lerolle's picture, "The Shepherdess!" The sheep? They prove her occupation. The ploughman? He helps tell us the time of year. The grass and the little pool? They suggest the green pastures and the still waters to which she leads. The great trees? They are a hedge, that the attention may stay this side of them. There are fields and hills and wheat stacks beyond them, but so vaguely suggested that the eye comes back disappointed, to rest again with satisfaction upon the fine strong face, and the graceful figure of the peasant girl. This shepherdess is the supreme object in the picture; not the only object, but one that all other objects help to make prominent. Her face is the face; all others are indistinct or turned away. Her figure, dark, moving in a delicate glory, is irresistibly attractive. No one can mistake for a moment the artist's intention. He wants us to see this one woman as he does, with all the world for a background.

Thought is expressed pictorially, as it is in words, through selection, arrangement and emphasis. The aim in each case is to focus the attention upon its proper object; to concentrate the interest where it belongs, that the thought may become clear to another mind.

Pictures which most perfectly reflect the thought of the artist,—his grasp of the subject as a whole,—when studied for their composition, will disclose at least three methods of securing unity. Murillo's "Holy Family," Hofmann's "Christ Disputing with the Doctors," and Turner's "Old Temeraire," are good illustrations.

1. In Murillo's picture (Plate V.) the Christ child is represented most clearly; almost the entire figure is visible, the



Plate III.



Plate IV.







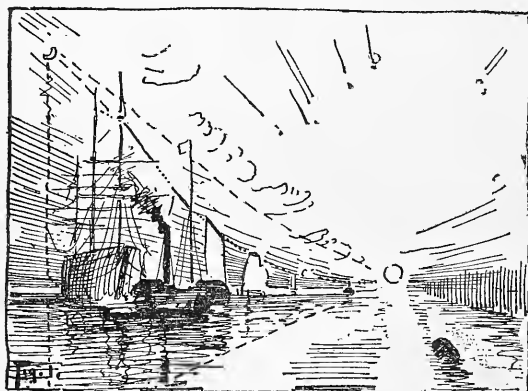
Plate V.

head is painted with a completeness of detail, a brilliancy of illumination, a fulness of color, echoed in that of the virgin mother, but unrivalled by anything in the picture. The central figure is further emphasized by the presence of the dove, but even that has not the strong contrasts of light and dark to be found in the sweet face of the child. The mother is more in the gloom than her son; Joseph is yet more dimly represented; while the heavenly Father and the attendant cherubs are delicately suggested as a part of the background. Here unity is brought about through *the emphasis of the principal object and the subordination of accessories*. "The Holy Night," "The Shepherdess," Schreyer's "Kabyl," "Penelope Boothby," Dagnan-Bouveret's "Mother and Child," Millet's "Shepherdess Knitting," Lerolle's "By the Riverside," and the "Rest in Flight," by Knaus, are all excellent illustrations of this.

2. In Hofmann's picture (Plate VI.) some other method is employed; for here the faces seem to be painted with equal care; the robes of the priests are of rich silks and velvets, while Christ's are of linen: but the gleaming marbles, the carved furniture, the inlaid seal of Solomon, the book of the law, the roll of the prophet, do not hold our attention, because they do not hold the attention of the rabbis. Their eyes are fastened upon one boyish face, their interest is absorbed by him who spake as never man spake. Our thought is centred in him because theirs is. Here unity is brought about through *the action of accessory figures*. This is further illustrated by such pictures as "A Fascinating Tale," Ronner; Salvator Rosa's "Diogenes in Search of an Honest Man;" Rosa Bonheur's "Horse Fair," and "Reading Homer," by Alma-Tadema.

3. In "The Old Temeraire" (Plate VII.), if one object is emphasized by the handling, it is the tug, but that is not the centre of interest. There are no accessory figures to indicate by action the principal point. How, then, is unity secured? Contemplating the picture, we find the eye constantly returning to the setting sun. Why not "The Sunset," then, for a title? In Turner's mind that was the title,—the sunset—of a glorious day in naval history. The old ship of the line was being towed to her last resting place; the day of the wooden navy, glorious

with the name of Nelson, was departing; to-morrow would be the new day of steel. After the stress of battle, the gallant ship goes to rest in peace, like the sun setting with gorgeous splendor triumphant over storm cloud and tempest. Wherever the eye falls upon the canvas there is something to direct it towards the sun, — the “sun glade,” the angle of the spar buoy, the receding lines of the shore at the right, the dipping of the cloud lines, the converging cloud shadows in the upper sky, the glowing edges of the storm clouds, the diminishing reflections at the left, —



all help to focus the attention on the sun. The eye is led to the sun by other interesting lines, as indicated in Fig. 1, the most curious being, perhaps, those from the new moon. The peculiar vertical reflection

upon the clouds beneath it draws the eye straight downward to the streak of light at the horizon running behind the ships to the sun, or to the reflection of the moon in the water, which falls in with the series of reflections diminishing towards the sun. Unity is thus secured by means of *leading lines*, which direct the attention, unobtrusively but surely, to the centre of interest.\* Other illustrations of this device are Millet's "Shepherds Directing;" Lerolle's "Nativity;" "The Blacksmith," by Frere; "The Repose in Egypt," by Van Dyck; Troyon's "Oxen going to Work;" and "The Shaw Memorial," by St. Gaudens.

II. A second characteristic of the best works of art is what has been called by some repose, but by others rhythm, or,

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\* Ruskin has a notable illustration of this in "Elements of Drawing," Letter III. In "Modern Painters," Part V., Chapter II., the two "Nottingham" plates are well worth study. In the first, the leading lines make the men and the huge log the most important part of the picture; in the second, by a skilful readjustment of the essential elements, the old church tower is the notable thing, the centre of interest, the heart of Nottingham.





Plate VI.

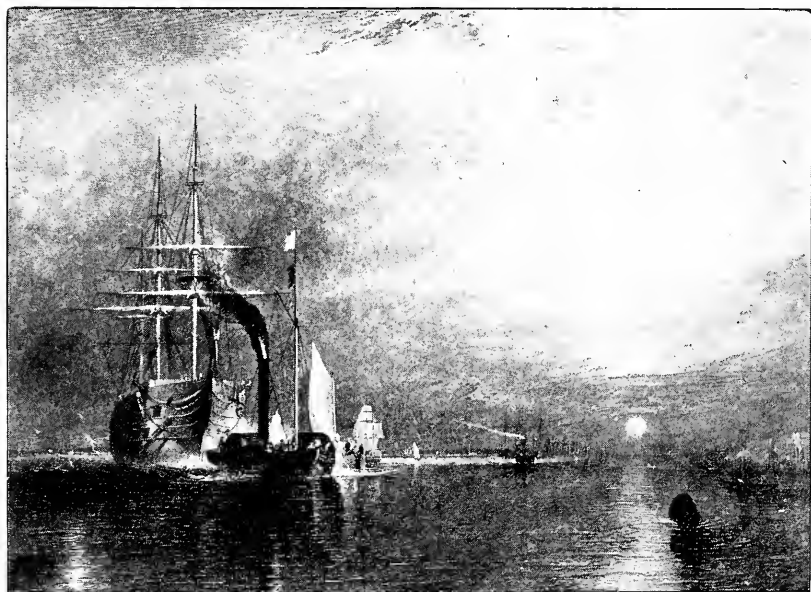


Plate VII.



better, *harmony*,\* — that nice adjustment of parts which produces a pleasing whole, and reveals the artist's perception of happy relations of line and mass, of light and dark, of color. Without the originals it is of course impossible to study harmony of color in the masterpieces.

Harmony is dependent (1) upon *division of space*, — the relation of the size of the principal object or objects to the field of the picture, of the principal object to its accessories, of one portion of space to another. For example, Fig. 2 is about as uninteresting as a rough sketch can be; but Fig. 3 is the same sketch, clipped to such a size that the principal object begins to assert itself; and

Fig. 4 is but a further reduction of the same, with some reference to interesting space division. An attempt to reduce any of the plates representing the masterpieces previously referred to will reveal at once



how well-considered are the space relations in these pictures; but most of them are too complicated, too rich in light and shade, too obscure in line, for pupils to study advantageously to discover space relations; hence but little emphasis should be placed upon that element in their composition.† Space division may be better taught by other means.

2. The second element in harmony is *the relation of light and dark*. One who examines any good example of *chiarascuro*, like “The Holy Night,” for example (Plate I.), will observe that all the lights and darks of the picture might

\* Hardly two writers agree upon the use of such terms as unity, rhythm, breadth, repose, harmony, as applied to pictorial art. I have endeavored to make a distinction in their use, within the comprehension of children.

† The secret of pleasing space division is undoubtedly variety or better *rhythm*. A checkerboard is an illustration of monotonous division of space; the unit of repetition (the “repeat”) in a plaid illustrates rhythmic space division. It is probably true that rhythm of some sort is the basis of all harmony, whether of musical tone, line, light and shade, or color.

be arranged in a series, running from white, or the lightest light, to black, or the darkest dark. If the light upon mother and child be considered as 1, that upon the shep-



herds would be 2; upon the angels, 3; in the sky, 4; upon the stones, etc., of the foreground, 5; upon Joseph and the ass, 6; and so on to the deepest black. Or, the black might be taken as 1, the next lighter tone

as 2, and so on to white. For convenience, it is best to divide this imaginary scale into two; one the scale of lights (white to gray, let us say), and the other of darks (gray to black). The management of these lights and darks is the problem of the luminarist.\*

Harmony appears when people "agree or agree to disagree;" and artists seem, for the most part, to have produced it in their pictures, either by keeping the principal lights together in one part of the picture, and the principal darks in another, to secure *gradation*, or placing them in opposition to one another, for the sake of *contrast*. In Plate VIII., "St. Michel's Mount," by Turner, the lights are massed in the upper and central parts of the picture, the darks in the lower corners. In the light part glows the lightest object; in the dark parts the darker objects are found:



Plates V. and VI. show gradation. Other good illustrations are Millet's "Shepherdess Knitting," Blashfield's "Christmas Chimes," and Lerolle's "Nativity."

"The Mill," by Rembrandt (Plate IX.), shows contrast of light and dark. Here the dark mill appears against a light sky, a dark boat against the light water, light figures against a dark ground. The upper sail of the mill is light against the dark cloud, the lower one dark against the light cloud. This harmony through contrast is attempted oftener, perhaps, than harmony through gradation. Turner's "Norham Castle,"

\* Van Dyke, in "Art for Art's Sake," has a valuable chapter upon this, entitled "Tone and Light and Shade."

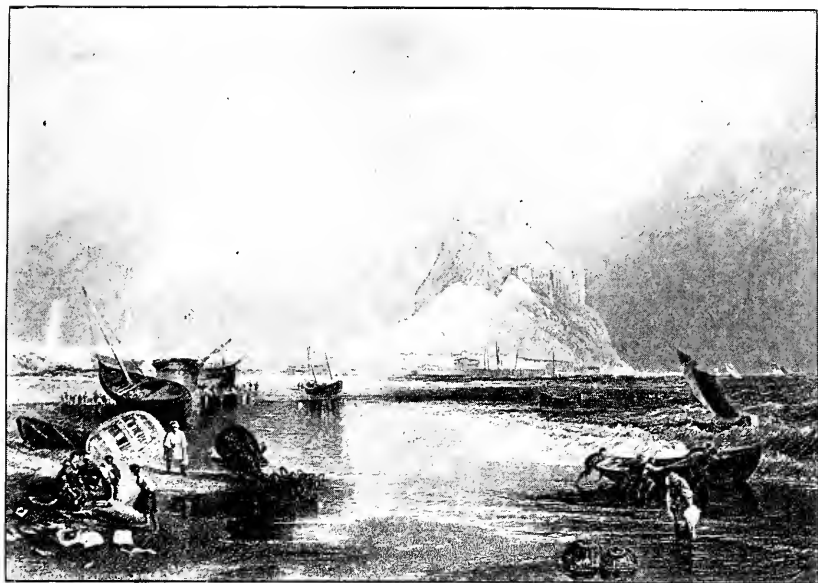


Plate VIII.



Plate IX.







Plate X.

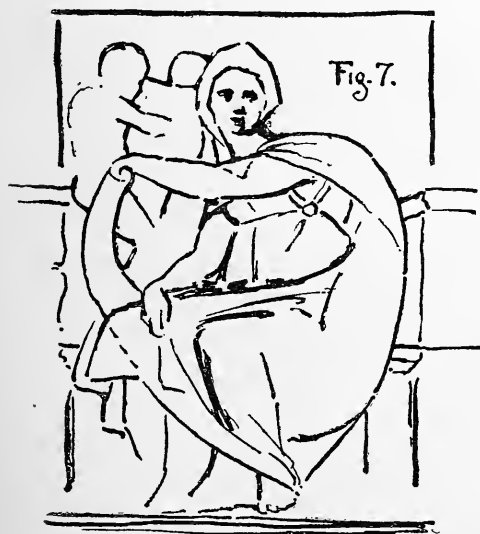


Hunt's "June Clouds," Breton's "Recall of the Gleaners," "The Sower" and "The Water Carrier," by Millet, are good examples of harmony through contrast.\*

3. A third element in harmony is what is known among artists as *composition of line*. The decorative artists have made use of all sorts of groups of lines to fill given spaces agreeably, but they are reducible to two types, which we may call, for convenience, the fret (Fig. 5)



and the swirl (Fig. 6).† In one, harmony, or repose, is secured through *opposition*; in the other, through *flow of line*. In the fret, lines meet one another, so far as possible, at right angles; in the swirl, the lines form, so far as possible, tangential curves.



In the first, the eye is continually arrested and faced about; in the second, one line passes the eye along gracefully to the next. The law of the fret is competition; the law of the swirl, co-operation.

1. Both opposition and flow of line are, to a degree, inevitable in every work of art; yet one or the other is likely to predominate, and give to the picture

strength or grace. As the supreme type of one style of line

\* In pictures which have the "decorative treatment," so called, — pictures in black and white only (as, for example, in "The Studio" for September, 1897, page 260), — harmony is secured through rhythmic space division and "spotting." The rhythm of light and dark in such cases is dependent upon areas, rather than upon intensities. The principal lights might be arranged in a series from the largest to the smallest, and the blacks in another (see Fig. 6).

† The first is from the Chinese, the second from a Gothic window.

composition stands the work of Michael Angelo; of the other, the work of Raphael.\* Plate X. shows the "Delphic Sybil." A rough tracing of the main lines of this (Fig. 7) will be sufficient to show at a glance how, after the whole figure was composed within a great heart-shape, almost every important line meets another at right angles. Rembrandt's "Mill" (Plate IX.), Hunt's "June Clouds" and "Reading Homer," by Alma-Tadema, and Millet's "Angelus," are good illustrations of

opposition of line in composition.



2. Plate XI., Raphael's "Maddalena," a tracing of which is shown in Fig. 8, is an admirable illustration of flow of line. Hardly an important line in the entire composition meets another abruptly. The heads of the mother and child are tangent ovals;

every detail falls into line or series; one outline flows into the next as gracefully as a little brook joins another in a meadow. The "Sistine Madonna" detail is another good illustration of flow of line. Others are Botticelli's "Coronation of the Virgin," Bouguereau's "Virgin, Infant Jesus and St. John," Millet's "Gleaners" and "The Golden Stair," by Burne-Jones.

But, after all, a work of art is greater than the sum of its parts. "The best part of every great work is always inexplicable; it is good because it is good; and innocently gracious,

---

\* See studies in connection with Plates XIII. and XIV., in "Lectures and Lessons on Art," Moody.



Plate XI.



opening as the green of the earth, or falling as the dew of heaven." \*

" . . . The poet, mad with heavenly fires,  
Flings men his song white-hot, then back retires,  
Cools heart, broods o'er the song again, inquires,  
Why did I this, why that? and slowly draws  
From Art's unconscious act Art's conscious laws." †

But the laws can never give the art, nor can the statement of them account for all that a work of art possesses. "The impressions that we receive, and the manner through which we render them, are in themselves so subtle that no one yet has been able to analyze more than a certain exterior, or part of the mechanism of sensation and of representation. Art begins where language ceases." ‡ The world worships the "Sistine Madonna," not because it is a good illustration of flow of line, but because of something which has never yet been put into words, nor reproduced in any copy of it, — a spiritual something imparted by the man who painted it, — the man who from his childhood sought for purity and perfection, who lived without envy or malice, loving the sweet Margarita, and, dying at thirty-seven, was called by his countrymen *Il Divino*.

The next movement seems destined to be along the lines suggested in my report to the Board four years ago, namely, (1) the collection of reference books and (2) works of art. By far the best art library to be found in any grammar school building in Massachusetts has been gathered by Mr. H. B. Lawrence, Holyoke. His enthusiastic activity has placed in the Appleton Street school about two hundred volumes, forming the art section of the teachers' professional library. For purposes of reference the list of books is here given entire: —

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\* Ruskin, in "Elements of Drawing." The chapter in which it is found, "On Color and Composition," contains much that is helpful in the study of pictures.

† Sidney Lanier.

‡ John La Farge.

## APPLETON STREET SCHOOL, HOLYOKE, MASS., JAN. 1, 1898.

TEACHERS' PROFESSIONAL LIBRARY (TWO THOUSAND VOLUMES).  
ART DEPARTMENT.*Shelf A.*

No.		
1.	Napoleon: From Corsica to St. Helena, . . .	STODDARD.
2.	Sights and Scenes of the World, . . .	RAYMOND.
3.	Famous Paintings of the World, . . .	WALLACE.
4.	Glimpses of the World, . . .	STODDARD.
5.	Art Treasures from the World's Fair.	
6.	Pictures by John Phillip, . . .	DAFFORNE.
7.	The Bowdoin Collection, . . .	ALLEN.
8.	All Things Bright and Beautiful, . . .	MACK.
9.	American Art, . . .	KOEHLER.
10.	Recent Italian Art, . . .	ROWLANDS.
11.	Book of Studies in Plant Form and Design, . . .	WIDGLEY AND LILLEY.
12.	Ornamental Design, . . .	DAY.
13-14.	American Art, 2 vols., . . .	MONTGOMERY.
15.	Handbook of Ornament, . . .	MEYER.
16.	Theory and Practice of Design, . . .	JACKSON.
17.	Lessons on Decorative Design, . . .	JACKSON.
18.	Decorative Composition, . . .	MAYEUX.
19.	History of French Painting, . . .	STRANAHAN.
20.	Dictionary of Literature and Art, . . .	BEETON.
21-22.	Art and Industry, 2 vols., . . .	BUREAU OF EDUCATION.
23-24.	Talks on Art, 2 vols., . . .	HUNT.
25.	Ten O'Clock, . . .	WHISTLER.
26.	Manual of Design, . . .	REDGRAVE.
27.	Nature in Ornament, . . .	DAY.
28.	Manual of Lettering, . . .	STRANGE.
29.	Posters in Miniature, . . .	PENFIELD.

*Shelf B.*

No.		
1-4.	Cyclopedia of Painters and Paintings, 4 vols., . . .	CHAMPLIN AND PURKINS.
5-7.	History of Modern Painting, 3 vols., . . .	MUTHER.
8-9.	History of Painting, 2 vols., . . .	WOLTMANN AND WOERMANN.
10-11.	History of American Sculpture, 2 vols., . . .	MITCHELL.
12-13.	History of Greek Sculpture, 2 vols., . . .	MURRAY.
14-15.	History of Art, 2 vols., . . .	LÜBKE.
16.	History of Ancient Art, . . .	REBER.
17.	History of Medieval Art, . . .	REBER.
18-19.	Life of Michael Angelo, 2 vols., . . .	SYMONDS.
20.	Modern French Masters, . . .	VAN DYKE.

*Shelf C.*

No.		
1-3.	Walpole's Anecdotes of Painting, 3 vols., . . .	DALLAWAY.
4-5.	Lectures on Art, 2 vols., . . . . .	TAINÉ.
6.	Principles of Art, . . . . .	VAN DYKE.
7.	Great Lights in Sculpture and Art, . . . . .	DOREMUS.
8.	History of Painting, . . . . .	VAN DYKE.
9-10.	Life of Michael Angelo, 2 vols., . . . . .	GRIMM.
11.	Renaissance in Italy, . . . . .	SYMONDS.
12.	Venice, . . . . .	YRIARTE.
13.	Anecdotes of Painters and Engravers, . . . . .	SPOONER.
14.	Stories of Italian Artists, . . . . .	From VASARI.
15.	Childhood in Literature and Art, . . . . .	SCUDDER.
16.	Famous Painters and Paintings, . . . . .	SHEDD.
17.	Famous Sculptors and Sculpture, . . . . .	SHEDD.
18.	Legends of the Madonna, . . . . .	JAMESON.
19-20.	Sacred and Legendary Art, . . . . .	JAMESON.
21.	A Century of Painters, . . . . .	REDGRAVE.
22.	Elementary History of Art, . . . . .	NANCY BELL D'ANVERS.
23.	Old Masters of Belgium and Holland, . . . . .	FROMENTIN.
24-25.	History of Art, 2 vols., . . . . .	GOODYEAR.
26.	The Christ Child in Art, . . . . .	VAN DYKE.
27.	Pharaohs, Fellahs and Explorers, . . . . .	EDWARDS.

*Shelf D.*

No.		
1.	Makers of Florence, . . . . .	OLIPHANT.
2.	English and American Painters, . . . . .	WILMOT, BUXTON AND KOEHLER.
3.	Painting: Spanish and French, . . . . .	SMITH.
4.	Painting: German, Flemish and Dutch, . . . . .	WILMOT, BUXTON AND POYNTER.
5.	Painting: Classic and Italian, . . . . .	POYNTER AND HEAD.
6.	Sculpture: Renaissance and Modern, . . . . .	SCOTT.
7.	Ancient Sculpture, . . . . .	REDFORD.
8.	Architecture: Classic and Early Christian, . . . . .	SMITH AND SLATER.
9.	Architecture: Gothic and Renaissance, . . . . .	SMITH.

*Illustrated Biographies of the Great Artists.*

No.		
10.	Hobbema and Potter, . . . . .	CUNDALL.
11.	Cox and De Wint, . . . . .	REDGRAVE.
12.	Cruikshank, . . . . .	STEPHENS.
13.	Mulready, . . . . .	STEPHENS.
14.	Corot, Daubigny and Duprè, . . . . .	MOLLETT.
15.	Lucca Della Robbia, . . . . .	SCOTT.
16.	Murillo, . . . . .	MINOR.
17.	Ghiberti and Donatello, . . . . .	SCOTT.
18.	Titian, . . . . .	HEATH.
19.	Fra Angelico, . . . . .	PHILLIMORE.

No.		
20.	Sir Joshua Reynolds, . . . . .	PULLING.
21.	Sir Edwin Landseer, . . . . .	STEPHENS.
22.	Romney and Lawrence, . . . . .	GOWER.
23.	Rembrandt, . . . . .	MOLLETT.
24.	Correggio, . . . . .	HEATON.
25.	Fra Bartolommeo, . . . . .	SCOTT.
26.	Claude de Lorraine, . . . . .	DULLEA.
27.	Figure Painters of Holland, . . . . .	GOWER.
28.	Hans Holbein, . . . . .	CUNDALL.
29.	Mantegna and Francia, . . . . .	CARTWRIGHT.
30.	Velazquez, . . . . .	STOWE.
31.	Leonardo, . . . . .	RICHTER.
32.	Millet, Rousseau and Diaz, . . . . .	MOLLETT.
33.	Michael Angelo, . . . . .	CLEMENT.
34.	Van Dyck, . . . . .	HEAD.
35.	Gainsborough, . . . . .	BROCK-ARNOLD.
36.	Rubens, . . . . .	KETT.
37.	Turner, . . . . .	MONKHOUSE.
38.	Raphael, . . . . .	D'ANVERS.
39.	Hogarth, . . . . .	DOBSON.
40.	Sir David Wilkie, . . . . .	MOLLETT.
41.	Giotto, . . . . .	QUILTER.
42.	Overbeck, . . . . .	ATKINSON.
43.	Horace Vernet, . . . . .	REES.
44.	Tintoretto, . . . . .	OSTER.
45.	The Little Masters, . . . . .	SCOTT.
46.	Albrecht Dürer, . . . . .	HEATH.
47.	Meissonier, . . . . .	MOLLETT.
48.	Child Life in Art, . . . . .	HURLL.
49.	French Art, . . . . .	BROWNELL.
50.	Art Hints, . . . . .	JARVES.
51-52.	Artists of the 19th Century, 2 vols., . . . . .	CLEMENT AND HUTTON.
53.	How to Judge of a Picture, . . . . .	VAN DYKE.
54.	Historic Schools of Painting, . . . . .	HOYT.
55.	Guide to Travel and Art Study in Europe, . . . . .	LOOMIS.

*Shelf E.*

No.		
1.	Thousand Miles Up the Nile, . . . . .	EDWARDS.
2.	Artistic Travel, . . . . .	BLACKBURN.
3.	Art for America, . . . . .	PARTRIDGE.
4.	Excursions in Art and Letters, . . . . .	STORY.
5.	Art for Art's Sake, . . . . .	VAN DYKE.
6.	Alma Tadema, . . . . .	EBERS.
7.	Boston Artists, . . . . .	SOISSONS.
8.	Art and Nature in Italy, . . . . .	BENSON.
9.	Old Masters and Their Pictures, . . . . .	TYTLER.
10.	Modern Painters and Their Paintings, . . . . .	TYTLER.
11.	Hopes and Fears for Art, . . . . .	MORRIS.



No.		
12.	The Fine Arts, . . . . .	BROWN.
13.	Manual of Color, . . . . .	CAVÈ.
14.	A Day in Ancient Rome, . . . . .	SHUMWAY.
15-16.	Rome, The Eternal City, 2 vols., . . . . .	CLEMENT.
17.	Manual of Mythology, . . . . .	MURRAY.
18.	Story of the Chosen People, . . . . .	GUERBER.
19.	Myths of Greece and Rome, . . . . .	GUERBER.
20.	Myths of Northern Lands, . . . . .	GUERBER.
21.	Manual of Greek Archeology, . . . . .	COLLIGNON.
22.	History of Greek Art, . . . . .	TARBELL.
23.	Manual of Egyptian Archeology, . . . . .	MASPERO.
24.	Imagination in Landscape Painting, . . . . .	HAMERTON.
25.	Action in Art, . . . . .	BEARD.
26.	English School of Painting, . . . . .	CHESNEAU.
27.	Art: Its Laws and Reasons for Them, . . . . .	LONG.
28.	Painting for Beginners and Students, . . . . .	CLEMENT.
29.	Gentle Art of Making Enemies, . . . . .	WHISTLER.
30.	Painters, Sculptors, Architects and Engravers, . . . . .	CLEMENT.
31.	Schools and Masters of Sculpture, . . . . .	RADCLIFFE.
32-33.	Studies in English Art, 2 vols., . . . . .	WEDMORE.
34-37.	Putnam's Art Handbooks, 4 vols.	
38.	Mythology of Greece and Rome, . . . . .	SEEMAN.

*Shelf F.*

No.		
1-13.	Ruskin's Works, 13 vols.	
14-15.	Conversations in a Studio, 2 vols., . . . . .	STORY.
16.	Thoughts About Art, . . . . .	HAMERTON.
17.	Graphic Arts, . . . . .	HAMERTON.
18-22.	Artist Biographies, 5 vols., . . . . .	SWEETSER.

A list of the available reference books of value to teachers of art ought to include at least two or three of the later sets of drawing books (and especially their accompanying manuals). After insisting for years that we ought to have "fine reproductions, on appropriate paper," of drawings by recognized artists, it is a satisfaction to be able to commend such examples of good work as these books contain, though they appear in an unfortunate form. As reference books, notwithstanding their improved contents, drawing books are still far from ideal. One of the first laws of art is unity. The best drawing may be spoiled in effect by being crowded upon a page with a half dozen others, unrelated to it either in sentiment or in style. How well the art magazines know this. It is unfortunate that so often an illustration in the drawing book, excellent in itself,

must be cut from the book and properly mounted, that its excellences may appear to advantage, and that the pupil may study it with undivided attention.

One of the leaders in the movement for school museums is Miss Irene Weir, director of art instruction in Brookline, who has kindly furnished for this report the following account of the beginning and growth of an art collection for the use of pupils in that town :—

COLLECTION OF PICTURES IN BROOKLINE, MASS., TO BE LOANED TO  
THE GRAMMAR AND PRIMARY SCHOOLS.

“What the public library is to students of literature, the art museum should be to students of art. When there is no art museum, or, even if there is one, every high school should have, as a prominent part of its equipment, a fine collection of casts, photographs, prints, color plates and art books. It should be a centre which every teacher, every mother and father and every child in the community can visit again and again, until he learns to the full the meaning of its contents.

“What a source of illumination such a place could become, — with lectures illustrated by lantern slides ; with informal talks on the lives of great artists and their works ; with frequent loan exhibitions of paintings and sculpture, and the work of our best modern illustrators ; and, in addition, with the possibility of its becoming a sort of circulating picturary, if we may coin a word, from which pictures could be loaned to every public school in the vicinity.

“If we read the books of great writers for our standards in literature, and hear the works of great composers for our standards in music, we must see the work of great artists for our standards in architecture, painting and sculpture.

“The art department of a high school might easily become a reservoir from which every child and every parent and every home could draw help and inspiration.”

The above is quoted from a report written Jan. 1, 1896. It is now two years later, and the circulating picturary has already become a fact. The collection of photographs purchased for this purpose numbers between six and seven hundred. They were selected with great care during the past summer in Italy (where prices are about two thirds less than in this country), with the special thought of placing before the young people of Brookline fine standards of architecture, sculpture and painting. They are not in any sense intended to serve as schoolroom decorations, but are to be closely examined

and studied in much the same way that fine examples of literature are studied. The money for this purchase (one hundred and fifty dollars) was generously given by Mr. George Armstrong and Mr. Desmond FitzGerald, in response to a casual request; and still another hundred has since been added for their mounting on firm photographic boards. We feel that this is but a beginning. A collection of several thousand photographs could be kept in constant circulation in a town the size of Brookline.

The collection is kept in the art room of the high school. Every photograph has been labeled and catalogued, and a printed list, when completed, is to be sent to each school, from which a teacher may select the photographs she wishes to borrow. They are to be drawn precisely as books are taken from any library.

Although the photographs are intended primarily for art study, they also will very greatly help in the study of history, literature, geography and science.

Great care has been taken to secure good photographs. Many of them are large architectural details, in which exquisite combinations of leaves, flowers, fruit, and figures as well, show that the great artists of the past went to nature for all their finest suggestions. But the genius of the artist lies in knowing how to use nature. The photograph reveals something of the process.

National and local pride was largely the stimulus of the past. Each city tried to outdo her neighbor in the beauty of her buildings, the harmony of her style and the perfection of her proportions. It was all for the glory of the national and civic life. Perhaps the day is not now far distant when we modern Americans can take pride in a national and civic art, demanded by the people and furnished and paid for by them. The art equipment of our public schools must be such that every child can taste of the beauty of the past, and know what to demand for the present. Surely no wiser nor saner use for public money can there be than this.

IRENE WEIR.

In other towns collections of art objects have been commenced by wide-awake supervisors and teachers. It is to be hoped these beginnings will be multiplied until every school building in the State shall have its little art museum. Beautiful Japanese prints and vases, facsimile reproductions of drawings by masters, ancient and modern, plates containing examples of historic ornament, photographs and casts at reasonable prices are now easily obtainable, and should be purchased by the school authorities with as much alacrity as globes and maps and charts are purchased.

Additional interest in original works of art has been awakened by means of the "Youth's Companion Collections," so generously loaned to schools. These collections include original drawings in pen and ink, crayon, black-and-white, and reproductions of some of them as they appear in print. One of these valuable and instructive collections may be had by any school, for two weeks, simply for the asking.

My own work during the past year, the general statistics of which appear in the report of the secretary of the Board, has been along the lines specified in the General Statutes, chapter 34, section 9, namely: visiting the several cities and towns (upon invitation of superintendent or supervisor); conferring with teachers and supervisors, singly or in groups; lecturing upon subjects connected with education, to teachers and to the people gathered in evening audiences; "and, in general, giving and receiving information upon such subjects." In a word, I have done my utmost this year, as heretofore, to discover the best in art instruction, and to spread the knowledge of it as widely as possible.

This year for the first time it has been possible to hold special State institutes for drawing teachers and supervisors. A series of three such institutes was planned to accommodate, so far as possible, the different sections of the State. The first occurred at Springfield, Tuesday, October 19, with the following program:—

*Morning.*

- |        |                                  |  |
|--------|----------------------------------|--|
| 10.00. | The Psychology of Art Education, | . Dr. THOMAS M. BALLIET,                       |
|        |                                  | <i>Superintendent of Schools, Springfield.</i> |
| 10.30. | Drawing in Elementary Schools,   | . Miss M. A. PEARSON,                          |
|        |                                  | <i>State Normal School, North Adams.</i>       |
| 11.00. | Drawing in High Schools,         | . . . . Mr. N. L. BERRY, Supervisor, Newton.   |

*Afternoon.*

- |       |                                |  |
|-------|--------------------------------|--|
| 1.45. | Recent Results in Springfield. | Illus-                                   |
|       | trated,                        | . . . . Mr. JAMES HALL, Supervisor.      |
| 2.15. | Vital Nature Study,            | . . . . Mr. WALTER SARGENT,              |
|       |                                | <i>Assistant State Supervisor.</i>       |
| 3.00. | Vital Art Education,           | . . . . Mr. JOHN WARD STIMSON, New York. |

Fifty supervisors of drawing were in attendance, and many of the Springfield teachers (for the school authorities allowed the schools to be closed at the option of the teachers); these, together with a few other visitors, made an audience of two hundred and fifty people.

The second was held in Worcester, on the 19th of November, with an attendance of about one hundred, including sixty supervisors :—

*Morning.*

- 10.00. The Supervisor's Relation to his Teachers, . . . . . Mr. FREDERICK L. BURNHAM,  
*Supervisor, North Adams.*
- 10.20. The Supervisor's Relation to the Pupils, Miss ELIZABETH H. DEMAREST,  
*Supervisor, Andover.*
- 10.45. The High School Problem, . . . . A discussion conducted by Mr. HENRY T. BAILEY. Mr. Berry, Newton, will speak on Courses, Miss Dranga, Boston, on Methods, and Miss Marsh, Worcester Normal, on Mediums.

*Afternoon.*

- 2.00. The Position of Art Instruction in General Education, . . . . . Mr. J. FREDERICK HOPKINS,  
*Director, Boston.*
- 2.45. The Value of an Art Environment, . . . . . Mr. J. MADISON STONE,  
*Supervisor, Worcester.*
- 3.15. Artistic Methods, . . . . . Mr. JAMES HALL, *Springfield.*

At Salem, on the 10th of December, the following program was presented :—

*Morning.*

- 9.30. The New Object Drawing, . . . . . Mr. CHARLES M. CAMPBELL, *Chicopee.*  
Discussion led by Mr. William L. Judkins, Clinton, and Miss Elizabeth E. Morse, Winchendon.
- 11.00. "To-morrow will be Another Day," . . . . . Miss AUGUSTA L. BALCH, *Salem.*
- 11.30. Lessons from Nature applied to Art, . . . . . Mr. GEORGE H. BARTLETT,  
*Principal Mass. Normal Art School.*

*Afternoon.*

- 2.00. The Correlation of Drawing with Other Studies, . . . . . Mr. CHARLES F. WHITNEY, *Salem.*
- 2.30. The Origin and Development of the Arts and their Significance in Relation to Art in the Schools, . . . . . Miss IRENE WEIR, *Brookline.*
- 3.30. A More Beautiful Public Life, . . . . . Mr. EDWIN D. MEAD, *Boston.*

This institute brought together the largest audience. Teachers near by were allowed to close school and attend ; the normal school pupils and many Salem people were present, making, with the forty-seven supervisors, a total of two hundred and seventy-seven.

Most appreciative letters and words of commendation from many supervisors lead me to believe that plans should be made for a series of such institutes the coming year. The successful

solution of the great problems of art education in this State, or any other, will be possible only through individual thought and experiment, under the inspiration of the experience and enthusiasm of the entire body of art educational workers. Each must help all, and all each. The institutes afford opportunities for mutual acquaintance, for the presentation of different views, for free discussion, for stimulating thought and speech, of high value to the individual and to the State.

I cannot bring this report to a close without a word concerning the supervisors of drawing in this State. The accompanying table will show who these are, and where they are located:—

SUPERVISORS OF DRAWING IN MASSACHUSETTS, DEC. 31, 1897.

FIELD.	Name.	Address.
Abington, . . .	Flora Townsend, . . .	Bridgewater.
Adams, . . .	T. M. Dillaway, . . .	Adams.
Amesbury, . . .	Gertrude B. Smith, . . .	Amesbury.
Amherst, . . .	Mrs. C. K. Couch, . . .	Amherst.
Andover, . . .	Elizabeth H. Demarest, . . .	Andover.
Arlington, . . .	Evelyn F. Cross, . . .	Stoneham.
Athol, . . .	Lizzie F. Rogan, . . .	Athol.
Attleborough, . . .	Dorothy M. Rice, . . .	Attleborough.
Barnstable, . . .	Mabel M. Heminway, . . .	Barnstable.
Belmont, . . .	Emma L. Parker, . . .	Belmont.
Berlin, . . .	Alice C. Eames, . . .	Northborough.
Beverly, . . .	Charles F. Whitney, . . .	8 Fairfield St., Salem.
Boston, . . .	J. Frederick Hopkins, . . .	17 Highgate St., Allston.
Braintree, . . .	Helen E. Hewes, . . .	Braintree.
Brockton, . . .	Mary B. Titcomb, . . .	37 Belmont St., Brockton.
Brookline, . . .	Irene Weir, . . .	Brookline.
Brookline, . . .	Annie B. Chamberlain, . . .	Brookline.
Cambridge, . . .	Peter Roos, . . .	Cambridge.
Cambridge, . . .	Lucia N. Jennison, . . .	Cambridge.
Canton, . . .	Mary S. Wood, . . .	Canton.
Chelsea, . . .	Wilhelmina N. Dranga, . . .	69 St. Botolph St., Boston.
Chelsea, . . .	Mary F. Carrick, . . .	Belvidere St., Boston.
Chicopee, . . .	Charles M. Campbell, . . .	Chicopee.
Cohasset, . . .	Sara T. Bailey, . . .	North Scituate.
Clinton, . . .	William L. Judkins, . . .	Clinton.
Concord, . . .	Oriana P. Fitch, . . .	Concord.
Danvers, . . .	Elizabeth C. Kent, . . .	Danvers.
Dedham, . . .	Wilhelmina N. Dranga, . . .	See Chelsea.
Dedham, . . .	Anna B. Morton, . . .	Dedham.

SUPERVISORS OF DRAWING IN MASSACHUSETTS, DEC. 31, 1897 — *Continued.*

FIELD.	Name.	Address.
Dover, . . .	Sadie R. Melzard, . . .	Atlantic.
Easthampton, . . .	Helena C. Evans, . . .	Easthampton.
Easton, . . .	Jennie E. Bailey, . . .	West Newton.
Everett, . . .	Ora Strange, . . .	"The Prescott," Everett.
Fitchburg, . . .	William Briggs, . . .	Fitchburg.
Fitchburg, . . .	Emma F. Chaffin, . . .	Fitchburg.
Foxborough, . . .	Sadie R. Melzard, . . .	See Dover.
Framingham, . . .	Josephine B. Mann, . . .	Framingham.
Franklin, . . .	Andrea R. Mason, . . .	Franklin.
Gardner, . . .	William J. Edwards, . . .	Gardner.
Gloucester, . . .	Carrie H. Sawyer, . . .	Gloucester.
Grafton, . . .	Flora M. Randall, . . .	Grafton.
Greenfield, . . .	Abby P. Churchill, . . .	51 High St., Greenfield.
Hanover, . . .	Anna Morton, . . .	Hanover.
Haverhill, . . .	Laura B. McLean, . . .	30 Arlington St., Haverhill.
Holyoke, . . .	Mrs. I. H. Ferry, . . .	Easthampton.
Holyoke, . . .	Mrs. Doherty, . . .	Holyoke.
Hopedale, . . .	Harriet E. Kingsbury, . . .	Hopedale.
Hudson, . . .	Sara S. Gannett, . . .	Hudson.
Lawrence, . . .	A. W. Scribner, . . .	173 Prospect St., Lawrence.
Lawrence, . . .	Eleanor I. Curtis, . . .	15 Bradford St., Lawrence.
Leominster, . . .	Ethel S. Chute, . . .	25 Orchard St., Leominster.
Lexington, . . .	Elizabeth J. Hilles, . . .	Dedham.
Longmeadow, . . .	Alice M. Willard, . . .	Longmeadow.
Lowell, . . .	Oliver E. Underhill, . . .	Lowell.
Ludlow, . . .	Alice M. Willard, . . .	See Longmeadow.
Lynn, . . .	Abby J. Barry, . . .	Lynn.
Lynn, . . .	Kate B. Moulton, . . .	Lynn.
Malden, . . .	L. Rena McLauthlin, . . .	58 Lincoln St., Malden.
Manchester, . . .	Elizabeth B. Treadwell, . . .	Manchester.
Mansfield, . . .	Harriet Blaisdell, . . .	Box 55, Station A, Providence, R.I.
Marblehead, . . .	Gertrude F. Sanderson, . . .	Peabody.
Marlborough, . . .	Martha S. Bucknam, . . .	Marlborough.
Medford, . . .	Louise MacLeod, . . .	Medford.
Melrose, . . .	Will S. Carter, . . .	Melrose.
Merrimac, . . .	Mary L. Cook, . . .	Dent St., West Roxbury.
Methuen, . . .	Maud Milner, . . .	Methuen.
Milford, . . .	Mrs. A. L. Hastings, . . .	Milford.
Millbury, . . .	Sara S. Gannett, . . .	See Hudson.
Montague, . . .	Lena S. Stratton, . . .	Montague.
Nantucket, . . .	Sara Winthrop Smith, . . .	Nantucket.
Natick, . . .	Mary F. Carrick, . . .	See Chelsea.
Needham, . . .	Alice M. Prince, . . .	Needham.

SUPERVISORS OF DRAWING IN MASSACHUSETTS, DEC. 31, 1897 — *Continued.*

FIELD.	Name.	Address.
New Bedford, . . .	Mary W. Gilbert, . . .	82 Spring St., New Bedford.
Newburyport, . . .	Sadie M. Morse, . . .	Newburyport.
Newton, . . .	Nathaniel L. Berry, . . .	12 Putnam St., W. Newton.
North Adams, . . .	Frederick L. Burnham, . .	North Adams.
Northampton, . . .	Katherine D. Whitman, .	Northampton.
North Andover, . . .	Harriet D. Condon, . . .	North Andover.
North Attleborough, . .	Mabel Brigham, . . .	North Attleborough.
Northborough, . . .	Alice C. Eames, . . .	Northborough.
Northbridge, . . .	Elizabeth Treadwell, . .	Northbridge.
Norwell, . . .	Anna Morton, . . .	<i>See</i> Hanover.
Norwood, . . .	Anna A. Robinson, . . .	Norwood.
Orange, . . .	William J. Edwards, . . .	<i>See</i> Gardner.
Palmer, . . .	Zadie Morrison, . . .	Palmer.
Peabody, . . .	Gertrude F. Sanderson, .	<i>See</i> Marblehead.
Pittsfield, . . .	George H. Denison, . . .	Pittsfield.
Plymouth, . . .	Clara F. Robinson, . . .	Plymouth.
Quincy, . . .	Charlotte A. Kendall, . .	Framingham.
Reading, . . .	Annie B. Parker, . . .	Reading.
Revere, . . .	Emma K. Parker, . . .	Revere.
Rockland, . . .	Adria L. Lantz, . . .	Rockland.
Salem, . . .	Augusta L. Balch, . . .	13 Vernon St., Somerville.
Saugus, . . .	Mary L. Cook, . . .	<i>See</i> Merrimac.
Sharon, . . .	Grace E. Southworth, . .	West Stoughton.
Shrewsbury, . . .	Mabel E. Dickinson, . .	Shrewsbury.
Somerville, . . .	Mary L. Patrick, . . .	Newtonville.
Southborough, . . .	Alice C. Eames, . . .	<i>See</i> Northborough.
South Hadley, . . .	Mary G. Balch, . . .	South Hadley.
Spencer, . . .	Elizabeth A. Aldrich, . .	Spencer.
Springfield, . . .	James Hall, . . .	99 Pearl St., Springfield.
Springfield, . . .	Cora Greenwood, . . .	54 Byers St., Springfield.
Stoneham, . . .	Evelyn F. Cross, . . .	<i>See</i> Arlington.
Stoughton, . . .	Grace E. Southworth, . .	<i>See</i> Sharon.
Swampscott, . . .	Elizabeth A. Bill, . . .	Swampscott.
Townsend, . . .	Emily L. Haines, . . .	Townsend.
Uxbridge, . . .	Elizabeth Treadwell, . .	<i>See</i> Northbridge.
Wakefield, . . .	Annie B. Parker, . . .	<i>See</i> Reading.
Wales, . . .	Charles M. Campbell, . .	<i>See</i> Chicopee.
Walpole, . . .	Sadie R. Melzard, . . .	<i>See</i> Dover.
Waltham, . . .	George E. Morris, . . .	Lexington Terrace, Waltham.
Ware, . . .	William L. Judkins, . . .	<i>See</i> Clinton.
Warren, . . .	Charles M. Campbell, . .	<i>See</i> Chicopee.
Watertown, . . .	Elizabeth C. Allen, . . .	Watertown.
Webster, . . .	Eva Benham, . . .	Webster.



SUPERVISORS OF DRAWING IN MASSACHUSETTS, DEC. 31, 1897 — *Concluded.*

FIELD.	Name.	Address.
Wellesley, . . .	Elizabeth C. Kent, . . .	<i>See</i> Danvers.
Westborough, . . .	Ella M. Fay, . . .	Westborough.
West Boylston, . . .	Mary E. Danforth, . . .	West Boylston.
Westfield, . . .	Mrs. Eliza H. Moseley, . . .	Westfield.
West Springfield, . . .	Arie E. Kelly, . . .	West Springfield.
Whitman, . . .	Adria L. Lantz, . . .	<i>See</i> Rockland.
Williamsburg, . . .	Grace Rising, . . .	Williamsburg.
Williamstown, . . .	Frederick L. Burnham, . . .	<i>See</i> North Adams.
Winchendon, . . .	Elizabeth E. Morse, . . .	Winchendon.
Winchester, . . .	Mabel G. Cross, . . .	Stoneham.
Winthrop, . . .	Mary S. Wood, . . .	Winthrop.
Worcester, . . .	J. Madison Stone, . . .	Worcester.
Worcester, . . .	Helen D. Marshall, . . .	Worcester.
Worcester, . . .	Frank J. Darrah, . . .	Worcester.

There was never a time in the history of this State when so many and so efficient supervisors have been employed. Believing, as I do, that the success of art education in this or any other State depends upon teachers and not upon things, — and upon teachers who have character, culture and *ability to draw* and to teach, — it has been my policy, from the first, to recommend, so far as possible, no one who depends upon another to do his thinking for him, or upon a drawing book to take the place of his own drawing, or upon a manual to instruct his teachers. I have used every legitimate means to influence towns to employ only well-trained supervisors, with minds open towards truth; with the courage to live to the truth as fast as discovered; with but one aim, — the greatest good to the child, and but one watchword, — Forward!

HENRY T. BAILEY.

NORTH SCITUATE, MASS., Dec. 31, 1897.



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REPORT OF J. W. MACDONALD,  
AGENT OF THE BOARD.

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## REPORT.

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*To the Board of Education.*

The year just passed has, for several reasons, greatly increased the demands upon your agents. As far as calls have come to me, I have endeavored to respond to them to the best of my ability. I have found it impossible, however, to respond to all. On pages 177, 178 of your secretary's report will be found some hints of what your agents have had to do, but few will realize the long days and the evenings required to do it in.

During the first half of the year my work was considerably increased, particularly my evening work, on account of the plans and arrangements for the Summer Teachers' Institute at Salem. This work was carried on in connection with the North Shore Summer Institute Association, to whose president, Mr. J. B. Gifford, superintendent of schools in Peabody and Marblehead, who gave himself devotedly to the undertaking, a great share of the credit for the success of the institute is due. We had, however, the gratification of knowing that the institute was a success. There was an aggregate attendance of nearly 700, chiefly teachers, and nearly all were enthusiastic in their expressions of approbation. By a vote taken the last day of the institute, the sentiment was unanimous for another the coming year, and about half favored a session of two weeks.

That summer institutes of the kind we are having at Salem and Laurel Park are needed, and are destined to become important educational factors, seems fully proven. How many weeks they should hold, and what should be the character of the instruction to accomplish the most good, are questions that should receive careful consideration in the light of experience. Holding for even five days, they are, in my opinion, worth far more than five times as much as a one-day session, not only in the amount of work accomplished, but in the opportunity fur-

nished the instructor to develop more systematically and with less cramming whatever line of instruction he undertakes.

But even more important, it seems to me, than anything else, is the question of the character of the work that should be done. Almost all the State institutes, as far as I know them, are given to general talks on pedagogy and methods of teaching. In this respect they do not much differ from the usual teachers' convention, except that they hold longer. I have a feeling, however, that much the greater part of the time should be given to academic instruction, partly, at least, beyond what the teacher actually needs to impart to his classes. I am confirmed in this belief by what I have often seen of the work in the schoolroom. I would by no means exclude talks on methods, but I know of no better way to teach a good method than to teach something by the method. The difficulty, however, that presents itself here is to find instructors who can or will do this. Indeed, it is easier to find ten who will give general talks, than to find one who can give good, helpful academic instruction.

But, if academic instruction is made the principal aim, the length of the institute should be not less than two weeks. This would enable the instructor to develop one or two principles with some degree of fulness. A difficulty that will, perhaps, always be encountered in giving this kind of instruction is the disposition of so many teachers, who attend the institute, to float about from room to room, passively listening to one instructor and then to another, just getting a sip of each subject, or, perhaps, seeking to be entertained. It is, I grant, the duty of the instructor to arouse interest, but he should not have to do it all at a teachers' institute. His pupils should bring an interest in the subject with them, to help him.

In October last, blanks were sent to all the high schools in the State, soliciting information regarding certain features of their equipment, organization and work. The results of the inquiry will be found tabulated in the accompanying tables, A and B, of which B is a summary of the number of pupils, teachers, etc.

It will be seen by these tables that 224 cities and towns report 244 high schools. There are several more, not reported, that, under existing definitions of a high school, might be

added to the number, but all except two or three of them are quite small.

One thing shown by the returns, which does not appear in the tables, is that the cost of the high schools of the State for current expenses, paid out of money raised by taxation, is fully \$1,500,000, out of a total of about \$8,000,000 annually expended on all the schools for the same items, or nearly one fifth of the whole. This is a large share of the money expended for education, and imposes on high school teachers a great moral responsibility to give to society a good deal in return. It may be well to consider briefly what part of the youth of the State are getting direct benefit from this large outlay, how they are getting it, and whether it is not possible to extend the privilege to a larger number.

There are in the State, on the average, a little over 43,100 children of each year of age from five to fifteen. The number will be for obvious reasons slightly greater for the years below ten, and for those above correspondingly less, but the number as given is sufficiently correct for our purpose. Of this number, a small per cent. are incapacitated for attending school by various causes. Also, for each year of age below twelve there are probably from 6,000 to 8,000 pupils in private schools; but above twelve the number for each year diminishes rapidly, and may possibly take from the number of scholars who normally belong to the second and first years before the high school 2,500 and 2,000 respectively. Making all reasonable deductions, it is clear that there are at least 38,000 children of the normal age to be in each of the two grades preceding the high, who are either in the public schools or not in school at all. A careful study of the returns points to the conclusion that in the whole State the number of scholars in the public schools that might be counted as belonging in the second year before the high school is about 25,000, under rather than over; and in the year before the high school about 19,500, or a little over one half the normal number.

It is true that many of the missing ones are still in public schools, slowly working their way up through the grades below; but it is also true that in these two grades are many that have dropped behind from previous grades, and some from younger grades, who have outrun their mates. The numbers in these

two cases would approximately balance each other if all scholars completed the grammar school course ; so that the discrepancy between the normal and the actual numbers in the two last grades of the grammar school gives a hint, at least, of the number of scholars who get out of school at the earliest possible moment.

From 19,500 in the grade before the high school, the number drops to 13,500 in the first year of the high school ; just about two thirds of the previous year, and approximately 32 per cent. of the whole normal number in the State. The second year in the high school, the number is about 9,250 ; the third, 6,500 ; and the fourth or last (as a rule), 4,500. The difference between these last two years is largely accounted for by the three years' courses in many schools, from which pupils are graduated at the end of the third year. The decrease in the number of pupils in the last years of the grammar school and between the grammar school and the high can be explained by the fact that the pupils are rapidly passing the age of compulsory attendance, whatever this may signify. How many of these pupils leave, constrained by the needs of their parents, — leave with regrets and tears ; and how many hail the free age as an opportunity to escape from a dry and distasteful routine, from an unfruitful and wearisome cramming of rules, definitions and text-book information, that never has awakened a spark of inspiration, — these questions cannot be answered ; but I have seen teaching in the upper grammar grades so mechanical and spiritless that I have been prone to wonder that so many scholars remain in school after the age of compulsory attendance has passed, rather than that so many leave. I would not have the teacher aim always to entertain his pupils ; but I would not, on the other hand, have him make of school a dull treadmill. There surely is a wise middle course.

But, if we explain the falling off in the upper grammar grades by the need or cupidity of parents, who take their children out of school as soon as the laws allow them to, we cannot in this way explain the falling off between the first and the second year in the high school. Scholars do not generally enter the high school till after the age of compulsory attendance is passed, and it is safe, therefore, to assume that they do



so of their own free will, or by the wish of their parents. Why, then, do they leave so soon? Some of them may be and probably are allured by a desire to get to earning and spending money; but may it not be that many are perverse enough to have been born with a mental appetite that the high schools do not consider it their duty to satisfy? It will effect a glorious reformation in educational aims and methods when we come to see that the improvement of every child, whatever his initial condition and his abilities may be, is of vastly greater worth to society than that a few should attain some fixed scholastic goal.

In this connection it will be worth while to study the columns of percentages at the end of Table A, which roughly show how the time in the high school is divided among the various groups of subjects. It will be easy to see that the foreign languages, of which Latin and Greek constitute about three fourths, distance all other subjects in popularity with those who make high school courses. But the percentages do not reveal the whole truth. It will be seen that in many of the smaller schools the reported courses of studies require more recitation periods than the teaching force can bear. In these cases something has to be sacrificed, but it is not the languages. Classes in chemistry or physics will be doubled, so that these sciences are taught only in alternate years to scholars of two different grades at the same time, to the discouragement and disadvantage of the younger scholars; and so with the other sciences, so with history and English literature, but rarely with the classics.

I have said that the cost of the high schools of the State for current expenses (not including their share of the cost of supervision) is fully \$1,500,000. It may be interesting to know about what proportion of this money goes for instruction in the different groups of subjects enumerated in Table A. Of course the estimate is only an approximate one: English, \$150,000; sociology, \$150,000; mathematics, \$225,000; languages, \$600,000; sciences, \$240,000; art and music, \$105,000; manual training, etc., \$30,000. It must impress all that the amount paid for language instruction, as compared with other valuable lines of instruction, deserves thoughtful consideration; for, after all this outlay, it must be confessed that the results are

exceedingly meagre, so far as language attainments are concerned; or, to put it another way, those attainments that a person who had not studied languages himself, would think their study signified.

But it will be said that it is not the purpose in studying Latin and Greek to make these languages mediums of expression; the aim is disciplinary, and to acquaint pupils with the roots of many of our English words. Then why spend so much time over an artificial pronunciation of these languages? Is there anything disciplinary in *a* like *a* in *father* instead of like *a* in *mate*, in *i* like *i* in *police* instead of like *i* in *mite*, or *c* like *k* instead of like *c* in *nice*, or does it make the origin of English words plainer? Indeed, there seems to be a good deal of obscurity as to what so much language teaching should accomplish.

If to the time given to other languages we add the time under English that is given to the abstract study of our own, it will appear that about half, and in many schools more than half of the whole time is given to the language training, entirely independent of any knowledge which the language is needed to express. Is not this giving too much time to this kind of language instruction for a good many pupils? Are there not other ways to prepare for a useful life? Those cities that have established English high schools have practically settled this question in the affirmative, as the popularity of these schools attests.

While it would be without doubt impossible to keep all the pupils who enter our high schools till graduation, yet it seems to me that a much better showing could be made, if our courses of studies were more scientifically arranged and the instruction more skilfully graded. It is a question not only of what should be taught the first year, but how it should be taught. At present it seems to me we bring in prematurely too much that is abstruse and difficult.

For example, physics and chemistry are the fundamental sciences. Astronomy, physical geography, botany, physiology, etc., are largely their application to certain phenomena; hence physics and chemistry should come first in the high school. Physics should begin in the last year in the grammar school,

and be continued through the first year in the high; but it should be elementary, dealing with general principles and laws applied to the phenomena which the pupils see in the world around them at every turn, — the fall of a stone, the motion of the wind, the flow of a brook, the movement of machines, etc. The study should not be too difficult or too mathematical. But here is the difficulty; the teachers have text-books designed for more advanced work (which should come later in the course), but they cannot simplify these or teach from facts. In a case that came to my knowledge, the teacher of a class in first year physics gave under specific gravity a page of problems of which this was one: Determine the specific gravity of a piece of wood from the following data: Weight of wood in air, 4 g.; weight of sinker in air, 10 g.; weight of wood and sinker under water, 8.5 g.; specific gravity of sinker, 10.5. This problem would never occur in practical physics, and, though it might do well enough as a test for an advanced class, it was altogether out of place in the elementary work of the first year, where, instead, the problems should have been simple and practical, with a sinker whose weight in water was known, and enough of these should have been done experimentally by each pupil to have made the principle clear.

I mention this only as an example of the kind of teaching in most of the first year's work that tends to discourage pupils and causes many to leave school. The age and preparation of the pupils considered, the most difficult year in the high school is now the first, and next to this the second.

Of the 244 high schools reported, 96, with 6,757 pupils, are preceded by eight grades, or years, in the schools below; 146, with 26,385 pupils, by nine grades; and 2, with 191 pupils, by ten.

I have endeavored to ascertain the effect on high school membership of only eight preparatory grades, as compared with nine, by finding the ratio of high school pupils, as reported last October, to population. This ratio in the different cities and towns varies widely, being very much larger in some places, having the nine grades, than in others having the eight. On the whole, however, it is larger in the latter case, running from 1 high school pupil for every 68 of population to 1 for every

30; while in places with the nine grades, the range is from 1 for every 121 to 1 for every 42. The smaller ratios in both cases are in manufacturing places with a large foreign population, composed of French Canadians or of peoples from the continent of Europe, that do not furnish many pupils for the high school. The local ratio, moreover, is misleading in many cases, as many high schools have pupils from other towns. Hence I have computed the ratios for the State as a whole, distributing to the two classes of high schools under discussion their proportionate share of the population of places not having high schools. According to my figures, the high schools having nine preceding grades average 1 pupil for every 75 of the population from which they draw, and those having eight preceding grades, average 1 for every 60, or a membership 25 per cent. greater in proportion to population. This is not all due, however, to the earlier admission, as the schools having eight preceding grades are, as a rule, in the smaller places, where the ratio of high school pupils to population is the larger in either case. There can be no doubt, however, that, with eight grades before the high, the membership of the high school is considerably increased. At the same time, the number of scholars in all the schools of the town is diminished, for the increase in the high school does not make up for eliminating the ninth grammar grade, except, perhaps, in Adams and Winchester, where the eight lower grades are followed by a five years course in the high school.

In many cases where there are nine preceding grades the high schools have three years and even two years courses, which seem to have full as much effect in increasing the ratio of membership to population as reducing the number of preparatory grades has.

A careful study of the returns seems to indicate a greater tendency on the part of pupils to drop out between the first and second years of the high school, where the preceding grades are eight, than when they are nine. The difficulty in making the comparison is in finding towns where the conditions are similar. These are most nearly so in the counties of Berkshire, Essex, Norfolk and Plymouth; but even in these counties the returns are undoubtedly for several reasons more favorable

to the high schools preceded by eight grades than all the facts would justify. Whatever it may be worth, the following table shows the percentage of falling off in membership between the first and second years in the high schools of the counties named, having eight and nine preparatory grades :—

COUNTIES.	Grades below the High School.	Decrease in Attendance from First High School Year to Second.
		Per Cent.
Berkshire, . . . . . {	8	30.1
	9	18.6
Essex, . . . . . {	8	37.2
	9	27.3
Norfolk, . . . . . {	8	38.7
	9	36.5
Plymouth, . . . . . {	8	28.7
	9	22.7

For the whole State the falling off between the first and second years in the high school is 1.5 per cent. greater, where the high schools are preceded by eight grades, than in the other case.

The returns for 1895, taken at the end of the school year, instead of at the beginning, as in the present case, seem to generally confirm the above. The corresponding percentages of decrease in membership in the same counties that year were as follows : Berkshire, 40 and 8 ; Essex, 42 and 33 ; Norfolk, 33 and 18 ; and Plymouth, 11 and 30.

I give these figures for what they are worth ; but if it should prove that, as a rule, pupils do drop out between the first and second years of high schools that have but eight preparatory grades, faster than in the other case, it would seem to confirm what I have said, — that prematurely difficult and abstruse instruction discourages them from continuing in the school. This instruction would work the more adversely, the younger the pupils are on entering.

The following table shows the number of pupils sent to

higher institutions in 1897, as compared with 1894, as shown by the returns : —

	1894.	1897.	Increase.
Normal schools, . . . . .	298	526	228
Scientific schools, . . . . .	260	274	14
Colleges, . . . . .	583	789	206

The number of regular high school teachers in 1894, as reported was 1,096 ; in 1897, 1,312, — an increase of 216. The actual number is about 20 larger in each case.

Respectfully submitted,

J. W. MACDONALD.

TABLE A. — *Showing Condition, Equipment, Organization and Courses of Studies of the Massachusetts High Schools as reported for October, 1897.*

[*Abbreviations and Signs.* — In the columns under “Accommodations,” suit., suitable; n. s., not suitable; sat., satisfactory; n. sat., not satisfactory; lim., limited. In the columns under “Pupils,” e means that the number given is an estimate, the returns being defective; s. specials; ex., admitted to the school by examination; pr., by promotion from the school below in due course; both of the abbreviations indicate that both methods are combined. In the columns giving the time allowance of the various subjects, a capital letter indicates that the time given to the subject is included in the time given under some other subject of the same group, designated by its initial; an asterisk, \*, that the subject is elective; a dagger, †, that it is partly elective; a large cross, +, that the school has a course in the subject, but the time not given. In the percentage columns, courses in penmanship, physical culture and military drill are not included. For summary, see Table B. The high schools of towns whose names are in *Italics* are doing the work of about two years of high school work only.]

TABLE A.—Showing Condition, Equipment, Organization and Courses of Studies of the Massachusetts High Schools as reported for October, 1897.

## BARNSTABLE COUNTY.

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.						How admitted.			
	Building.	Sanitary Condi- tions.	Pa- laboratory ilities.	Reference Li- brary, Volumes.		NUMBER IN GRAMMAR SCHOOL.		NUMBER IN HIGH SCHOOL.							
						Second Year before High.	Year before the High.	First Year.	Second Year.	Third Year.	Fourth Year.		Fifth Year.	Total.	
Barnstable,	. . . . .	n. s.	n. sat.	none	24	9	68	64	14	24	10	20	-	68	ex.
Bourne, .	. . . . .	suit.	sat.	fair	200	8	26	29	9	19	11	5	-	44	pr.
Chatham, .	. . . . .	suit.	sat.	poor	60	8	12	19	11	14	2	4	-	31	ex. pr.
Dennis, .	. . . . .	suit.	sat.	none	20	8	10	6	13	6	4	-	-	23	ex.
Dennis, West,	. . . . .	suit.	sat.	lim.	60	8	e20	e20	19	16	8	-	-	43	ex.
Falmouth, .	. . . . .	suit.	sat.	good	50	8	35	42	22	27	9	12	-	70	ex.
Harwich, .	. . . . .	suit.	sat.	lim.	200	9	e35	e30	22	2	10	-	-	34	ex.
Provincetown,	. . . . .	fair	poor	lim.	120	10	38	30	19	24	12	12	-	67	pr.
Sandwich,	. . . . .	fair	fair	lim.	50	8	24	19	7	12	6	3	2	30	pr.
Wellfleet,	. . . . .	fair	fair	poor	few	9	6	6	6	8	11	-	-	25	pr.
Yarmouth,	. . . . .	n. s.	n. sat.	poor	few	9	11	9	18	4	-	-	-	22	ex.

## BERKSHIRE COUNTY.

Adams, . . . . .	suit.	sat.	fair	300	8	100	60	51	27	20	12	11	121
Cheshire, . . . . .	suit.	sat.	poor	50	8	e13	e10	15	6	4	8	-	33
Dalton, . . . . .	n. s.	sat.	poor	50	9	43	42	24	22	14	14	-	74
Great Barrington, . . . . .	suit.	sat.	good	100	8	30	19	22	23	12	21	-	78
Hinsdale, . . . . .	suit.	sat.	none	33	8	13	10	10	7	-	-	-	17
Lee, . . . . .	suit.	sat.	lim.	40	9	24	29	24	26	17	-	-	81
Lenox, . . . . .	suit.	sat.	none	150	8	e40	e30	19	19	11	-	-	49
North Adams, . . . . .	n. s.	fair	poor	50	9	89	86	66	54	26	54	-	200
Pittsfield, . . . . .	suit.	sat.	good	250	9	161	139	64	70	72	59	-	265
Sheffield, . . . . .	suit.	sat.	none	50	8	10	4	16	5	1	6	8	30
Stockbridge, . . . . .	suit.	sat.	fair	250	8	20	14	20	10	12	-	-	48
Williamstown, . . . . .	n. s.	n. sat.	poor	60	9	35	11	33	9	14	7	-	63



TABLE A. — *Showing Condition, Equipment, etc. — Continued.*BARNSTABLE COUNTY — *Continued.*

TOWNS.	NUMBER SENT TO						TEACHERS.				SCHOOL DAY.			Length of School Year in Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		COLLEGE.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Gradu- ates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.	
	1896.	1897.	1896.	1897.	1896.	1897.								
Barnstable,	3	5	-	-	2	1	3	-	-	2	5	1	6	40
Bourne, .	-	-	-	-	-	-	2	-	-	2	5	2	7	40
Chatham,	1	-	-	-	-	-	1	-	-	1	5 $\frac{1}{2}$	2	13	36
Dennis, .	1	-	-	2	-	-	1	-	1	-	5 $\frac{1}{2}$	2	12	36
Dennis, West,	1	4	-	-	-	-	1	-	-	1	5 $\frac{1}{2}$	2	11	36
Falmouth,	2	2	-	-	-	-	3	-	-	3	5 $\frac{1}{2}$	2	6	40
Harwich,	-	-	-	-	-	-	1	-	-	1	6	2	10	36
Provincetown,	-	2	-	-	3	-	3	1	-	2	5	2	7	38
Sandwich,	-	1	-	-	-	-	1	-	-	2	5 $\frac{1}{2}$	2	7	40
Wellfleet,	1	-	-	-	-	-	1	-	-	1	6	2	10	36
Yarmouth,	-	4	1	-	1	-	2	-	-	1	5 $\frac{1}{2}$	1	11	36

BERKSHIRE COUNTY — *Continued.*

Adams, . . . . .	3	6	-	-	5	6	1	-	3	5	2	6	39
Cheshire, . . . . .	1	1	-	-	-	-	-	-	1	5 $\frac{1}{2}$	2	11	36
Dalton, . . . . .	1	1	-	-	1	-	-	-	3	5 $\frac{1}{2}$	2	8	40
Great Barrington, Hinsdale, . . . . .	1	1	1	1	2	1	-	-	2	5 $\frac{1}{2}$	2	9	40
Lee, . . . . .	-	-	-	-	-	3	-	-	1	6	2	12	37
Lenox, . . . . .	1	2	-	-	3	5	-	-	2	5 $\frac{1}{2}$	2	10	40
North Adams, Pittsfield, . . . . .	-	10	-	-	-	7	-	-	3	5 $\frac{1}{2}$	1	6	39
Sheffield, . . . . .	3	2	3	1	5	7	2	-	4	5	1	6	40
Stockbridge, . . . . .	-	-	-	-	-	1	-	-	1	5 $\frac{1}{2}$	2	11	-
Williamstown, . . . . .	1	5	-	-	3	1	1	-	3	4 $\frac{3}{4}$	2	8	40
						4	-	-				6	38

TABLE A.—*Showing Condition, Equipment, etc.—Continued.*  
 BARNSTABLE COUNTY—*Continued.*

TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.																	
TOWNS.	ENGLISH.				SOCIOLOGY.				MATHEMATICS.				LANGUAGES.				
	Literature.	Rhetoric.	Composition.	Grammar.	History.	Civil Government.	Political Economy.	Moral Philosophy.	Algebra.	Geometry.	Trigonometry.	Arithmetic.	Bookkeeping.	Latin.	Greek.	French.	German.
Barnstable,	312	C	195	-	298	112	-	-	195	195	-	-	112	780	390	307	-
Bourne,	360	40	160	80	360	80	-	-	*160	160	-	*120	*360	*480	-	*480	*480
Chatham,	120	120	33	60	180	60	60	-	180	180	-	60	60	720	-	-	-
Dennis,	250	120	100	100	180	60	120	-	180	180	-	40	-	*430	-	-	-
Dennis, West,	272	100	108	-	180	48	96	-	180	180	-	48	-	*360	-	-	-
Falmouth,	240	120	80	40	240	*120	-	-	200	200	-	-	*56	*600	*440	*280	*320
Harwich,	+	+	+	+	+	+	+	-	+	+	-	-	-	+	+	+	+
Provincetown,	*342	*152	152	-	*380	*76	*76	*54	*266	190	*76	*144	*76	*684	*380	*418	*418
Sandwich,	320	40	80	-	300	60	-	-	160	150	-	-	120	560	-	300	-
Wellsfleet,	150	78	114	-	36	36	-	-	114	42	72	72	-	570	-	-	-
Yarmouth,	288	144	108	144	288	72	-	-	300	300	96	48	72	540	*180	432	-
BERKSHIRE COUNTY—Continued.																	
Adams,	585	L	L	117	390	*78	-	-	390	195	-	*117	-	*702	*468	*468	*468
Cheshire,	180	120	120	130	120	120	-	-	180	180	120	72	120	720	-	-	-
Dalton,	320	130	160	-	200	70	-	-	270	200	78	130	78	800	400	400	-
Great Barrington,	700	L	L	L	*320	*100	*60	-	320	200	78	210	45	*700	*480	-	-
Hinsdale,	-	*148	-	148	*185	-	-	-	185	185	-	185	-	555	-	-	-
Lee,	200	200	-	-	400	80	80	-	200	200	-	-	-	800	600	600	-
Lenox,	200	160	-	56	344	60	-	-	200	200	-	36	65	800	600	480	-
North Adams,	624	L	L	L	*351	60	57	-	195	195	-	*117	65	*780	*588	*390	*390
Pittsfield,	320	160	160	120	80	100	-	-	160	160	*80	*160	*80	*640	*480	*240	*240
Sheffield,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockbridge,	400	100	25	100	200	100	100	100	200	200	-	60	40	*800	-	400	-
Williamstown,	190	C	190	50	240	-	-	-	315	190	-	90	-	760	570	-	380

<sup>1</sup> Bourne reports Psychology 80 also.

TABLE A.—*Showing Condition, Equipment, etc.—Continued.*

## BARNSTABLE COUNTY — Continued.

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.																
	SCIENCES.								ART AND MUSIC.			MISCELLANEOUS.					
	Physics.	Chemistry.	Botany.	Geology.	Astronomy.	Zoölogy.	Physiology.	Physical Geography.	Political Geography.	Drawing.	Color.	Music.	Manual Training.	Stenogra-phy.	Type-writ-Ing.	Penman-ship.	Physical Culture.
Barnstable,	112	64	112	44	-	-	46	112	-	156	-	156	-	-	-	-	-
Bourne,	240	160	45	*60	*60	*40	40	*60	-	108	-	432	-	-	-	-	-
Chatham,	80	80	60	80	-	-	60	-	-	210	-	-	-	-	-	-	-
Dennis,	180	-	120	120	120	-	60	60	-	36	-	-	-	-	-	-	-
Dennis, West,	180	-	180	72	120	-	-	44	-	-	-	-	-	-	-	-	-
Falmouth,	*200	*200	120	-	-	-	24	120	-	-	-	-	-	-	-	-	-
Harwich,	+	+	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-
Provincetown,	114	114	*60	*72	*78	*114	*42	114	-	-	-	-	-	-	-	-	-
Sandwich,	200	65	45	80	80	80	42	60	60	160	-	-	-	-	-	-	-
Wellsfleet,	152	78	36	36	42	36	42	76	76	72	-	38	-	-	-	-	-
Yarmouth,	216	-	60	96	96	-	96	48	-	-	-	72	-	-	-	-	-

## BERKSHIRE COUNTY — Continued.

Adams,	•	*273	117	*52	*78	—	*52	117	195	—	daily	—	—	—
Cheshire,	•	120	120	120	60	120	60	60	195	—	160	—	—	—
Dalton,	•	200	130	70	—	70	60	—	320	—	200	—	200	—
Great Barrington,	•	160	*100	*80	—	*80	*50	*50	—	—	—	—	—	—
Hinsdale,	•	74	—	—	—	—	—	148	185	—	—	—	—	—
Lee,	•	200	80	—	80	120	100	60	—	—	—	—	—	—
Lenox,	•	84	60	65	—	75	60	—	—	—	160	—	—	—
North Adams,	•	*195	*100	—	*195	*100	—	—	*156	—	*156	—	—	—
Pittsfield,	•	112	50	110	60	—	*50	*45	*160	—	*160	—	*320	—
Sheffield,	•	—	—	—	—	—	—	—	—	—	—	—	—	—
Stock bridge,	•	200	100	100	—	100	100	—	—	—	160	—	—	—
Williamstown,	•	190	50	—	—	65	140	—	—	—	—	—	—	—

TABLE A.—*Showing Condition, Equipment, etc.—Continued.*BARNSTABLE COUNTY—*Concluded.*

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can hear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.	Miscellaneous.
Barnstable, . . . . .	3,700	3,600	4 <sup>3</sup>	14	11	14	40	13	8	—
Bourne, . . . . .	3,905	2,800	4 <sup>4</sup>	11	11	21	37	18	2	—
Chatham, . . . . .	2,409	2,350	4 <sup>4</sup>	14	12	20	30	15	9	—
Dennis, North, . . . . .	2,410	2,160	3 <sup>3</sup>	20	15	16	18	22	9	—
Dennis, South, . . . . .	—	1,980	3 <sup>3</sup>	—	—	—	—	—	—	—
Falmouth, . . . . .	3,600	3,600	4 <sup>3</sup>	13	10	12	46	19	—	—
Harwich, . . . . .	—	—	3 <sup>4</sup>	—	—	—	—	—	—	—
Provincetown, . . . . .	4,292	3,990	4 <sup>3</sup>	15	13	17	39	16	—	—
Sandwich, . . . . .	2,780	2,800	4 <sup>3</sup>	17	13	16	31	17	6	—
Welfleet, . . . . .	1,820	1,900	3 <sup>3</sup>	19	4	17	32	26	2	—
Yarmouth, . . . . .	3,766	3,960	3 <sup>4</sup>	19	10	22	29	16	4	—

L. M. Boody.  
C. W. Peirce.  
C. C. Richardson.  
C. E. Corliss.  
Wilmington Hodgkins.  
Leland B. Lane.  
Seth H. Chase.  
Ira A. Jenkins.  
F. S. Stebbins.  
John Rankin.  
Edward F. Peirce.

Principal, September, 1897.

BERKSHIRE COUNTY—*Concluded.*

Adams, . . . . .	5,295	7,020	5	13	9	14	40	18	6	—	John C. Hull.
Cheshire, . . . . .	2,532	1,980	4 <sup>4</sup>	12	10	22	28	28	—	—	Carrie M. Allen.
Daiton, . . . . .	4,846	4,800	4 <sup>3</sup>	15	5	16	34	12	10	8	H. L. Allen.
Great Barrington, . . . . .	3,775	3,600	4 <sup>4</sup>	18	13	21	32	16	—	—	Sanford L. Cutler.
Hinsdale, . . . . .	1,898	2,220	2 <sup>2</sup>	15	9	28	29	10	9	—	Geo. J. Walsh.
Lee, . . . . .	4,000	6,000	4 <sup>3</sup>	10	14	10	50	16	—	—	John D. Seacord.
Lenox, . . . . .	3,704	3,600	4 <sup>3</sup>	11	11	14	51	9	4	—	Herbert H. Gadsby.
North Adams, . . . . .	4,841	8,190	4 <sup>3</sup>	13	10	14	45	16	6	—	Charles A. Byram.
Pittsfield, . . . . .	4,360	7,200	4 <sup>3</sup>	17	4	15	38	12	7	7	L. M. Rowland.
Sheffield, . . . . .	—	—	—	—	—	—	—	—	—	—	Alfred W. Rogers.
Stockbridge, . . . . .	3,685	3,200	4 <sup>2</sup>	17	14	16	32	16	4	—	H. A. Strong.
Williamstown, . . . . .	3,600	4,500	4 <sup>4</sup>	12	7	17	47	17	—	—	

TABLE A.—*Showing Condition, Equipment, etc.—Continued.*

## BRISTOL COUNTY.

TOWNS.	ACCOMMODATIONS.					Grades below High.	PUPILS.								How admitted.
	Buildings.	Sanitary Condi- tions.	Laboratory Pa- cilities.	Reference Li- brary, Volumes.	NUMBER IN GRAMMAR SCHOOL.		NUMBER IN HIGH SCHOOL.								
					Second Year before High.		Year before the High.	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.	Total.		
Attleborough,	•	•	•	•	•	8	e100	e89	44	30	34	22	-	130	pr.
Dartmouth,	•	•	•	•	•	8	21	25	16	16	19	-	-	32	ex.
Easton,	•	•	•	•	•	9	80	60	42	23	17	17	-	101	ex.
Fairhaven,	•	•	•	•	•	9	35	17	22	11	8	9	-	50	pr.
Fall River,	•	•	•	•	•	9	420	330	287	147	116	109	31	690	pr.
Mansfield,	•	•	•	•	•	9	57	55	22	22	12	-	-	56	ex.
New Bedford,	•	•	•	•	•	9	283	197	142	115	76	42	-	375	pr.
North Attleborough,	•	•	•	•	•	9	74	66	28	32	18	13	-	91	pr.
Taunton,	•	•	•	•	•	9	290	185	148	93	77	52	-	370	pr.
Westport,	•	•	•	•	•	8	24	18	9	3	6	-	-	18	ex.

## DUKES COUNTY.

Cottage City,	•	•	•	•	•	3	9	7	6	8	3	—	24
Edgartown,	•	•	•	•	•	14	5	4	9	3	—	—	16
Tisbury,	•	•	•	•	•	10	10	12	7	5	4	—	28

## ESSEX COUNTY.

Amesbury,	•	•	•	•	•	114	110	67	38	25	20	—	150
Andover,	•	•	•	•	•	—	—	22	21	22	18	—	83
Beverly,	•	•	•	•	•	195	166	87	68	56	14	—	225
Danvers,	•	•	•	•	•	116	96	87	58	22	31	—	198

TABLE A.—*Showing Condition, Equipment, etc. — Continued.*BRISTOL COUNTY — *Continued.*

TOWNS.	NUMBER SENT TO				TEACHERS.				SCHOOL DAY.			Length of School Year In Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Gradu- ates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.	
	1896.	1897.	1896.	1897.								
Attleborough,	—	—	—	1	5	—	—	4	5	2	6	40
Dartmouth,	—	—	—	—	8	—	—	1	6	2	12	38
Easton,	3	3	—	—	—	2	—	1	5	2	6	39
Fairhaven,	—	1	—	—	—	—	—	—	4½	1	7	40
Fall River,	3	8	1	2	21	2	1	10	4½	1	5	40
Mansfield,	5	—	—	—	—	—	—	2	5½	2	8	40
New Bedford,	—	1	3	—	16	4	1	5	5	1	6	40
North Attleborough,	—	—	—	—	4	1	—	4	5	1	6	40
Taunton,	7	8	2	4	10	—	—	8	5	1	6	40
Westport,	—	—	—	—	1	—	—	1	6	2	11	36

DUKES COUNTY — *Continued.*

Cottage City,	—	—	—	1	2	—	—	2	5½	2	11	36
Edgartown,	—	1	—	—	1	—	—	1	6	2	12	36
Tisbury,	—	—	—	—	2	1	—	1	5½	2	11	36

ESSEX COUNTY — *Continued.*

Amesbury,	—	2	1	1	6	2	—	4	5	1	6	40
Andover,	1	1	—	—	4	—	—	2	4	1	6	37
Beverly,	—	—	1	1	6	1	—	4	5	1	6	40
Danvers,	1	3	1	1	6	1	—	4	5	1	6	40

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
BRISTOL COUNTY — *Continued.*

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN REGITATION PERIODS.																
	ENGLISH.				SOCIOLOGY.				MATHEMATICS.				LANGUAGES.				
	Literature.	Rhetoric.	Composi- tion.	Grammar.	History.	Civil Gov- ernment.	Political Economy.	Moral Phi- losophy.	Algebra.	Geometry.	Trigonom- etry.	Arithmetic.	Bookkeep- ing.	Latin.	Greek.	French.	German.
Attleborough	600	L	L	L	240	*80	*80	-	280	240	-	-	-	800	480	320	*160
Dartmouth,	90	-	80	-	204	80	-	-	180	88	-	25	64	300	-	-	-
Easton,	195	96	-	160	351	48	48	48	195	195	-	39	156	702	585	195	-
Fairhaven,	160	160	120	-	*200	*125	*75	-	250	250	-	50	*200	800	-	200	-
Fall River, <sup>1</sup>	320	C	320	C	+400	80	*80	*40	240	+320	*80	*80	*320	*840	*600	*240	-
Mansfield,	200	C	200	C	140	60	-	-	200	200	-	-	60	600	400	200	-
New Bedford,	400	40	160	40	320	80	-	-	280	360	-	240	*320	640	600	640	-
N. Attleborough,	520	80	80	120	+360	60	-	-	+300	200	60	-	-	680	520	320	-
Taunton,	300	200	32	-	*100	100	*80	100	+400	*300	*160	*100	*100	*800	*600	*600	-
Westport,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dukes County — Continued.																	
Cottage City,	108	36	*36	-	108	54	-	-	180	144	108	*108	108	576	-	*432	-
Edgartown,	108	36	*36	-	108	54	-	-	180	144	108	*108	108	576	-	*432	-
Tisbury,	108	36	*36	-	108	54	-	-	180	144	108	*108	108	576	-	*432	-
Essex County — Continued.																	
Amesbury,	320	320	480	-	+600	80	-	-	600	360	-	160	*160	800	520	240	-
Andover,	444	L	L	L	*333	*111	-	-	*296	*361	-	*55	*111	*740	*481	*370	-
Beverly,	160	-	80	-	*80	80	-	-	200	160	-	60	160	680	520	520	-
Danvers,	200	80	80	-	-	80	-	-	300	300	-	200	400	800	600	400	-

<sup>1</sup> Fall River, Psychology 40, and Commercial Law 60, in addition to above.





TABLE A. — Showing Condition, Equipment, etc. — Continued.

## BRISTOL COUNTY — Concluded.

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can hear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.	Miscellaneous.
Attleborough, . . . . .	4,320	6,000	4 <sup>3</sup> / <sub>3</sub>	14	9	12	41	17	7	-
Dartmouth, . . . . .	1,387	2,200	2 <sup>3</sup> / <sub>3</sub>	12	20	26	22	20	-	-
Easton, . . . . .	3,728	3,510	4 <sup>3</sup> / <sub>3</sub>	13	13	16	40	12	6	-
Fairhaven, . . . . .	3,750	4,200	4 <sup>3</sup> / <sub>3</sub>	12	11	20	27	26	4	-
Fall River, . . . . .	7,450	21,000	4 <sup>3</sup> / <sub>3</sub>	8	8	14	26	13	11	20
Mansfield, . . . . .	3,060	3,200	3 <sup>3</sup> / <sub>3</sub>	13	6	15	39	16	11	-
New Bedford, . . . . .	7,380	19,200	3 <sup>3</sup> / <sub>3</sub>	9	5	16	34	17	19	-
North Attleborough, . . . . .	4,620	4,800	4 <sup>3</sup> / <sub>3</sub>	18	9	12	34	19	8	-
Taunton, . . . . .	5,512	12,000	4	10	7	19	47	14	3	-
Westport, . . . . .	-	-	-	-	-	-	-	-	-	-

## DUKES COUNTY — Concluded.

Cottage City, . . . . .	2,478	2,160	3, 4	7	7	26	40	14	6	-
Edgartown, . . . . .	2,478	2,160	3, 4	7	7	26	40	14	6	-
Tisbury, . . . . .	2,478	2,160	3, 4	7	7	26	40	14	6	-

## ESSEX COUNTY — Continued.

Amesbury, . . . . .	5,400	7,200	4 <sup>3</sup> / <sub>3</sub>	21	12	24	29	11	3	-
Andover, . . . . .	4,128	4,440	4 <sup>3</sup> / <sub>3</sub>	11	11	20	39	16	3	-
Beverly, . . . . .	3,420	6,000	3 <sup>3</sup> / <sub>3</sub>	7	5	17	50	17	4	-
Danvers, . . . . .	4,400	6,000	2 <sup>3</sup> / <sub>3</sub>	8	2	27	41	9	4	9



TABLE A. — *Showing Condition, Equipment, etc. — Continued.*ESSEX COUNTY — *Continued.*

TOWNS.	NUMBER SENT TO						TEACHERS.				SCHOOL DAY.			Length of School Year in Weeks.	
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		COLLEGE.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.		
	1896.	1897.	1896.	1897.	1896.	1897.									
Essex, . . . . .	1	-	-	-	1	-	2	-	-	-	2	2	9	34	
Georgetown, . . . . .	6	2	8	6	13	17	2	2	1	1	1	5	1	6	40
Gloucester, . . . . .	-	1	-	1	-	-	13	1	1	1	1	6	1	6	40
Groveland, . . . . .	-	1	4	1	4	8	2	2	1	1	4	5 <sup>1</sup> <sub>2</sub>	1	6	40
Haverhill, City, . . . . .	-	1	-	-	1	-	13	4	1	1	2	5	1	6	40
Haverhill, Bradford, . . . . .	-	1	-	-	1	-	4	1	1	1	4	5	1	6	40
Ipswich, . . . . .	-	1	-	-	1	-	3	3	-	-	2	4 <sup>1</sup> <sub>2</sub>	2	7	40
Lawrence, . . . . .	2	4	3	5	5	6	17	-	-	-	11	4 <sup>1</sup> <sub>2</sub>	1	6	40
Lynn, Classical, . . . . .	-	1	4	4	16	7	13	2	-	-	10	5	1	5	40
Lynn, English, . . . . .	2	3	3	6	-	-	18	3	5	6	6	5	1	5	40
Manchester, . . . . .	-	1	-	-	-	-	3	-	-	-	2	5	1	6	40
Marblehead, . . . . .	2	1	1	-	-	3	5	1	-	-	3	5	1	6	40
Merrimac, . . . . .	-	1	-	-	-	-	3	-	-	-	3	5	2	6	40
Methuen, . . . . .	3	4	-	-	1	2	3	3	1	-	3	5	1	6	40
Nahant, . . . . .	-	-	-	-	-	-	5	-	-	-	2	5	2	7	39
Newburyport, . . . . .	-	1	-	10	-	8	9	1	-	-	2	5	2	6	40
North Andover, . . . . .	3	5	-	-	3	-	2	-	-	-	7	5	1	6	40
Peabody, . . . . .	-	4	1	3	4	-	4	-	-	-	2	5	1	6	40
Rockport, . . . . .	-	-	1	-	-	-	5	1	1	-	4	5	1	6	40
Salem, . . . . .	2	4	2	3	7	10	15	3	1	1	10	5 <sup>1</sup> <sub>2</sub>	1	5	38
Saugus, . . . . .	-	-	-	-	-	-	3	3	-	-	3	4 <sup>1</sup> <sub>2</sub>	1	6	40
Swampscott, . . . . .	-	-	-	-	3	1	3	-	-	-	3	4 <sup>1</sup> <sub>2</sub>	1	6	40
Topsfield, . . . . .	-	-	-	-	-	-	2	-	-	-	2	4 <sup>1</sup> <sub>2</sub>	1	7	40
West Newbury, . . . . .	-	1	-	-	-	-	1	-	-	-	1	5	2	12	24

TABLE A.—*Showing Condition, Equipment, etc.*—Continued.  
 ESSEX COUNTY—Continued.

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.										LANGUAGES.			
	ENGLISH.			SOCIOLOGY.			MATHEMATICS.				Latin.	Greek.	French.	German.
	Literature.	Rhetoric.	Composition.	Grammar.	History.	Civil Government.	Political Economy.	Moral Philosophy.	Algebra.	Geometry.	Trigonometry.	Arithmetic.	Bookkeeping.	
Essex, . . . . .	170	68	170	-	170	70	70	-	170	170	-	120	-	680
Georgetown, . . . . .	80	120	60	300	120	65	65	-	200	200	-	200	39	400
Gloucester, <sup>1</sup> . . . . .	*200	200	160	-	320	100	-	-	320	280	-	200	*160	*800
Groveland, . . . . .	210	125	50	50	110	60	60	-	160	160	-	100	30	560
Haverhill, City, . . . . .	320	80	160	-	120	40	-	-	280	400	-	320	60	320
Haverhill, Bradford, . . . . .	205	280	R	R	434	140	-	-	264	264	-	32	60	720
Ipswich, . . . . .	160	40	160	L	160	-	-	-	320	320	-	-	-	760
Lawrence, . . . . .	720	L	L	L	560	H	H	-	460	300	-	200	-	640
Lynn, Classical, . . . . .	560	L	L	L	280	70	70	-	280	400	120	*60	-	800
Lynn, English, <sup>2</sup> . . . . .	440	L	160	C	*300	80	60	-	224	224	*60	*120	+440	*640
Manchester, . . . . .	200	160	160	C	280	80	-	-	200	200	-	-	-	*800
Merrimack, . . . . .	+227	C	+266	-	+324	*65	*65	-	260	+267	-	*52	-	*100
Methuen, . . . . .	324	54	122	-	345	60	48	-	225	241	48	-	54	687
Nahant, <sup>3</sup> . . . . .	185	C	185	C	310	65	-	-	185	185	-	-	-	370
Newburyport, <sup>4</sup> . . . . .	160	120	140	-	*480	*50	*40	-	280	*280	-	*60	*60	*800
North Andover, . . . . .	160	40	80	-	400	60	60	-	240	200	60	80	100	800
Peabody, . . . . .	200	C	100	-	400	100	80	-	200	200	100	100	100	800
Rockport, . . . . .	265	190	190	190	190	90	-	-	240	190	-	70	120	760
Salem, . . . . .	640	L	120	L	*640	*160	*160	-	280	*200	*160	-	-	*680
Saugus, . . . . .	336	L	120	-	160	128	-	-	160	160	-	64	160	*480
Swampscott, . . . . .	580	80	40	-	230	80	-	-	160	200	-	-	80	640
Topsfield, . . . . .	270	120	270	-	*360	-	-	-	160	120	-	80	120	480
West Newbury, . . . . .	96	96	96	-	144	48	48	-	192	144	-	48	48	432

<sup>1</sup> Gloucester has also Commercial Law and Banking, 200.

<sup>2</sup> Lynn, English High, has also Spanish, 160.

<sup>3</sup> Nahant has also Elocution, 74.

<sup>4</sup> Newburyport has also Psychology, 45.

TABLE A.—*Showing Condition, Equipment, etc.—Continued.*  
*Essex County—Continued.*

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECREATION PERIODS.											
	SCIENCES.						ART AND MUSIC.			MISCELLANEOUS.		
	Physics.	Chemistry.	Botany.	Geology.	Astronomy.	Zoology.	Physiology.	Physical Geography.	Political Geography.	Drawing.	Color.	Musical.
Essex, . . . . .	102	68	96	72	—	—	25	25	—	—	—	—
Georgetown, . . . . .	60	100	60	60	—	—	70	70	—	160	—	160
Gloucester, . . . . .	200	*200	80	*100	*100	*100	*100	—	—	D	—	160
Groveland, . . . . .	100	100	80	60	—	—	60	60	—	—	—	160
Haverhill, City, . . . . .	360	200	60	40	120	—	60	80	—	80	—	160
Haverhill, Bradford, . . . . .	280	280	86	75	65	—	75	60	—	40	—	160
Ipswich, . . . . .	160	160	48	48	72	—	—	—	—	160	—	160
Lawrence, . . . . .	160	160	160	B	B	—	160	—	—	160	—	320
Lynn, Classical, . . . . .	120	*200	*60	80	80	—	*60	120	P G	*160	—	160
Lynn, English, . . . . .	*400	*200	80	80	100	*80	*60	—	P G	200	—	160
Manchester, . . . . .	*200	*200	+280	200	100	B	—	100	*140	160	—	160
Marblehead, . . . . .	*+	*+	*+	—	*+	*65	+	—	—	—	—	—
Merrimac, . . . . .	*88	*85	*72	*65	*65	*65	*80	*65	—	160	+	120
Methuen, . . . . .	195	156	60	60	48	—	60	60	—	160	—	160
Nahant, . . . . .	125	60	125	*65	—	—	65	—	—	74	—	148
Newburyport, . . . . .	*120	*120	*60	*60	*60	—	40	—	—	*40	—	160
North Andover, . . . . .	160	200	60	—	40	40	60	40	—	160	—	160
Peabody, . . . . .	300	400	100	100	100	—	—	—	—	160	—	160
Rockport, . . . . .	*190	*190	70	*190	*190	—	38	100	—	*160	—	160
Salem, . . . . .	*400	*200	*80	—	—	*80	—	G	—	152	—	160
Saugus, . . . . .	140	192	60	96	64	—	—	—	—	90	—	160
Swampscott, . . . . .	200	160	80	40	40	—	—	80	—	*320	—	160
Topsfield, . . . . .	120	—	60	—	60	—	—	—	—	120	—	120
West Newbury, . . . . .	96	48	—	48	48	—	48	96	—	—	—	—

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*ESSEX COUNTY — *Concluded.*

TOWNS.	No. of Recitation Periods per Year required of the Courses of Studies.	No. of Recitations per Year the Teaching Force can bear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.	
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.		Miscellaneous.
Essex,	3,078	3,080	4 <sup>2</sup>	13	10	15	49	13	—	—	Wesley S. Goodwin.
Georgetown,	2,664	2,400	3, 4 <sup>2</sup>	21	7	24	22	20	6	5	J. G. Morrell.
Gloucester,	6,340	15,600	2, 4 <sup>2</sup>	9	7	15	45	14	5	1	A. W. Bachelier.
Groveland,	2,745	2,400	3 <sup>2</sup>	20	6	16	35	17	6	9	Robert O. Small.
Haverhill, City,	4,520	13,000	3 <sup>2</sup>	12	4	18	37	20	5	4	Clarence E. Kelley.
Haverhill, Bradford,	4,435	4,800	4 <sup>2</sup>	11	13	14	38	20	2	2	Frank P. Morse.
Ipswich,	4,048	4,200	3, 4 <sup>2</sup>	9	4	16	52	12	7	—	J. P. Marston.
Lawrence,	6,320	20,400	4 <sup>2</sup>	11	9	15	38	10	8	9	James D. Horne.
Lynn, Classical,	5,080	13,000	4 <sup>2</sup>	11	8	17	44	14	6	—	Eugene D. Russell.
Lynn, English,	5,748	18,000	3 <sup>2</sup> , 4 <sup>2</sup>	10	8	19	28	20	6	10	C. S. Jackson.
Manchester,	4,480	4,800	4 <sup>2</sup>	12	8	9	40	24	7	—	W. S. C. Russell.
Marblehead,	—	6,000	4 <sup>2</sup>	—	—	—	—	—	—	—	E. H. Eastman.
Merrimac,	4,046	3,600	3 <sup>2</sup>	6	12	15	37	23	7	—	C. C. Ferguson.
Methuen,	4,094	6,000	4 <sup>2</sup>	12	11	14	40	15	8	—	C. A. Paige.
Nahant,	2,983	2,730	4 <sup>2</sup>	12	12	6	50	15	5	—	O. A. Tuttle.
Newburyport,	4,735	10,800	4 <sup>2</sup>	9	13	14	46	10	8	—	George A. Dickey.
North Andover,	4,320	4,800	4 <sup>2</sup>	6	12	19	42	14	7	—	Charles T. Woodbury.
Peabody,	4,800	6,000	4 <sup>2</sup>	6	12	15	37	23	7	—	John M. Nichols.
Rockport,	3,667	3,420	4 <sup>2</sup>	22	8	17	31	24	8	—	—
Salem,	5,520	15,000	4 <sup>2</sup>	12	17	12	35	14	3	7	Frank M. Collesier.
Saugus,	3,050	3,600	3 <sup>2</sup>	15	9	18	32	18	8	—	Norris E. Adams.
Swampscott,	4,280	4,280	4 <sup>2</sup>	16	7	12	40	14	11	—	Gardner P. Balch.
Topsfield,	3,020	2,800	3 <sup>2</sup> , 4 <sup>2</sup>	22	12	16	34	8	8	—	Roy E. Moor.
West Newbury,	2,160	2,160	4 <sup>2</sup>	13	11	20	38	18	—	—	Fred W. Dudley.

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*

## FRANKLIN COUNTY.

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.								How admitted.
	Buildings.	Sanitary Condi- tions.	Laboratory Fa- cilities.	Reference Li- brary, Volumes.		NUMBER IN HIGH SCHOOL.						Total.		
						NUMBER IN GRAMMAR SCHOOL.		First Year.	Second Year.	Third Year.	Fourth Year.		Fifth Year.	
						Second Year before the High.	Year before the High.							
Ashfield,	suit.	sat.	poor	4,700	8	e14	10	14	8	-	-	32	ex.	
Conway,	suit.	sat.	none	100	8	15	11	12	10	1	-	34	ex.	
Deerfield,	suit.	sat.	none	47	8	12	11	10	3	-	-	24	ex.	
Greenfield,	suit.	sat.	good	200	9	65	64	54	20	21	-	159	pr.	
Montague, Turners Falls,	suit.	sat.	fair	300	9	e15	13	17	15	9	-	56	ex.	
Montague, Centre,	suit.	sat.	fair	80	8	15	16	8	13	5	-	42	ex.	
Orange,	n. s.	n. sat.	lim.	-	9	60	45	39	21	21	-	126	pr.	
Sherburne, <sup>1</sup>	suit.	sat.	lim.	300	9	20	32	26	20	12	s31	121	pr.	
Sunderland,	suit.	fair	none	25	7	8	7	7	-	-	-	14	ex.	

## HAMPDEN COUNTY.

Chicopee,	•	•	•	1,500	9	56	54	24	25	8	-	57	pr.
Ludlow,	•	•	•	-	9	8	7	6	5	-	-	18	-
Monson,	•	•	•	1,950	8	16	32	28	27	17	-	107	ex.
Palmer,	•	•	•	500	9	45	37	28	13	8	-	86	pr.
Springfield,	•	•	•	900	9	381	274	159	93	89	15	562	pr.
Westfield,	•	•	•	700	9	140	87	62	24	24	-	205	pr.
West Springfield,	•	•	•	700	9	60	40	32	31	34	-	146	ex.

<sup>1</sup> Arms Academy.

TABLE A. — *Showing Condition, Equipment, etc.* — Continued.

## FRANKLIN COUNTY.

TOWNS.	NUMBER SENT TO						TEACHERS.				SCHOOL DAY.			Length of School Year In Weeks.	
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		COLLEGE.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.		
	1896.	1897.	1896.	1897.	1896.	1897.									
Ashfield,	-	-	1	1	-	1	2	-	-	-	2	6	2	8	38
Conway,	-	4	-	1	-	1	2	1	-	-	2	6	2	8	36
Deerfield,	-	-	-	-	-	-	1	6	-	-	-	5 $\frac{1}{2}$	2	15	-
Greenfield,	-	1	1	2	3	4	6	3	1	4	3	5	2	6	40
Turners Falls,	-	-	1	-	1	2	3	3	-	1	2	5	1	7	38
Montague, Centre,	-	-	-	-	-	6	4	4	2	-	2	5 $\frac{1}{2}$	2	8	38
Orange,	-	-	1	-	3	-	4	4	-	-	5 $\frac{1}{2}$	2	2	7	39
Shelburne,	-	1	1	-	3	1	4	4	-	-	5 $\frac{1}{2}$	2	2	8	36
Sunderland,	-	-	-	-	-	-	1	1	-	-	1	6	2	12	36

## HAMPDEN COUNTY.

Chicopee, . . . . .	3	1	-	1	6	1	-	4	4 $\frac{3}{4}$	1	7	38
Ludlow, . . . . .	-	-	-	-	1+	-	-	1	5 $\frac{3}{4}$	2	7	39
Monson, . . . . .	-	-	5	-	7	-	-	6	5 $\frac{3}{4}$	2	6	39
Painier, . . . . .	3	1	9	1	4	-	1	3	5	1	6	40
Springfield, . . . . .	10	10	22	5	23	4	1	18	5 $\frac{3}{4}$	1	5	40
Westfield, . . . . .	4	1	7	1	8	1	-	3	5	1	6	40
West Springfield, . . . . .	2	4	3	-	5	-	-	4	4 $\frac{1}{2}$	1	6	40





TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
FRANKLIN COUNTY — *Continued.*

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.																
	SCIENCES.										ART AND MUSIC.			MISCELLANEOUS.			
	Physics.	Chemistry.	Botany.	Geology.	Astronomy.	Zoology.	Physiology.	Physical Geography.	Political Geography.	Drawing.	Color.	Music.	Manual Training.	Stenogra-phy.	Type-writ-ing.	Penman-ship.	Physical Culture.
Ashfield, . . . . .	190	-	85	*50	60	50	120	60	-	-	-	-	-	-	-	-	760
Conway, . . . . .	120	-	90	-	-	120	+	120	-	-	-	-	-	-	-	-	-
Deerfield, . . . . .	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
Greenfield, . . . . .	200	*200	*125	-	-	*75	*55	*55	+	+	-	-	-	300	300	-	-
Montague, Turners Falls, . . . . .	180	180	-	60	60	-	-	60	-	*144	-	144	-	-	-	-	-
Montague, Centre, . . . . .	180	120	48	120	60	-	-	120	24	432	-	72	-	-	-	-	-
Orange, . . . . .	120	120	65	65	65	65	65	65	-	-	-	78	-	-	-	-	-
Shelburne, . . . . .	275	180	90	90	-	90	90	-	-	-	-	-	-	-	-	-	-
Sunderland, . . . . .	120	120	90	-	-	120	60	-	-	-	-	160	-	-	-	-	-
HAMPDEN COUNTY -- Continued.																	
Chicopee, . . . . .	+	+	+	+	-	-	-	+	-	+	-	-	-	+	+	-	-
Ludlow, . . . . .	+	+	-	115	75	+	75	-	-	39	-	-	-	-	-	-	-
Monson, Academy, . . . . .	145	195	90	60	60	-	60	-	-	+160	-	160	-	-	-	-	160
Palmer, . . . . .	220	120	60	*40	*80	95	36	-	-	+380	-	*152	-	-	-	-	-
Springfield, . . . . .	155	*130	80	*80	*60	60	60	-	60	320	-	160	-	*560	*200	-	-
Westfield, . . . . .	*180	*196	*100	*80	*60	*60	60	60	-	80	-	80	-	-	-	-	-
West Springfield, . . . . .	168	196	100	72	64	80	-	-	-	-	-	-	-	-	-	-	-

HAMPDEN COUNTY — *Continued.*

TABLE A. — Showing Conditions, Equipment, etc. — Continued.

## FRANKLIN COUNTY — Concluded.

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can bear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR							Principal, September, 1897.
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.	Miscellaneous.	
Ashfield,	4,625	3,040	3, 4	12	8	14	54	12			Orren Henry Smith.
Conway,	2,970	2,960	3, 4	19	11	18	37	15			Mary A. Lewis.
Deerfield,	-	-	2, 4	-	-	-	-	-			Wm. H. Whiting.
Greenfield,	6,810	7,200	2, 4	13	16	15	38	10	8		Lucas E. Baker.
Montague, Turners Falls,	3,426	3,990	4, 4	13	6	15	42	16	8		Eva L. Tower.
Montague, Centre,	4,728	4,320	4, 4	10	4	10	51	14	11		Charles M. Simmons.
Orange,	4,127	5,460	4, 4	11	13	16	45	15	2		C. A. Holbrook.
Shelburne,	4,685	5,760	4, 4	13	7	15	50	15			
Sunderland,	1,880	2,160	3, 3	16	20	23	33	8			

## HAMPDEN COUNTY — Concluded.

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can bear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.	
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.		Miscellaneous.
Chicopee, . . . . .	-	-	4 <sub>2</sub>	-	-	-	-	-	-	-	W. C. Whiting. Frederic F. Smith. Arthur N. Burke. A. C. Thompson. Fred W. Atkinson. H. W. Kittridge. John C. Worcester.
Ludlow, . . . . .	-	-	4 <sub>3</sub>	-	-	-	-	-	-	-	
Monson, Academy, . . . . .	3,539	8,190	3 <sub>2</sub>	9	15	13	44	18	1	-	
Palmer, . . . . .	3,780	4,800	-	12	5	18	41	15	9	-	
Springfield, . . . . .	6,778	23,000	3, 4 <sub>2</sub>	6	6	9	38	9	8	24	
Westfield, . . . . .	6,198	9,600	3, 4 <sub>3</sub>	9	5	19	44	13	8	12	W. C. Whiting. Frederic F. Smith. Arthur N. Burke. A. C. Thompson. Fred W. Atkinson. H. W. Kittridge. John C. Worcester.
West Springfield, . . . . .	4,146	6,000	2, 4 <sub>3</sub>	13	9	18	39	17	4	-	

TABLE A.—*Showing Condition, Equipment, etc. — Continued.*  
HAMPSHIRE COUNTY.

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.						How admitted.			
	Building.	Sanitary Condi- tions.	Laboratory Fa- cilities.	Reference Li- brary, Volumes.		NUMBER IN GRAMMAR SCHOOL.		NUMBER IN HIGH SCHOOL.					Total.		
						Second Year before High.	Year before the High.	First Year.	Second Year.	Third Year.	Fourth Year.			Fifth Year.	
Amherst, . . . . .	n. s.	sat.	poor	250	9	54	52	39	38	31	22	7	137	pr.	
Easthampton, . . . . .	suit.	fair	good	100	9	41	30	17	21	21	13	-	72	ex.	
Granby, . . . . .	suit.	sat.	none	40	-	5	4	10	3	8	-	-	21	ex.	
Hadley, Hopkins Academy, . . . . .	suit.	sat.	none	250	8	020	e16	9	12	11	4	-	36	ex.	
Northampton, . . . . .	suit.	sat.	good	200	9	133	87	60	39	29	27	-	155	ex. pr.	
Southampton, . . . . .	suit.	n. sat.	none	none	9	8	9	10	-	-	-	-	10	ex.	
South Hadley, . . . . .	n. s.	sat.	none	200	9	32	23	19	12	8	5	-	44	-	
Ware, . . . . .	suit.	sat.	good	354	9	42	37	25	19	27	13	-	84	pr.	
Williamsburg, . . . . .	suit.	n. sat.	none	50	8	10	9	7	4	3	-	-	14	ex.	
Williamsburg, Haydenville, . . . . .	n. s.	n. sat.	none	50	8	12	8	7	8	-	-	-	15	ex.	
MIDDLESEX COUNTY.															
Acton, . . . . .	-	sat.	-	120	8	22	20	18	15	14	4	-	51	pr.	
Arlington, . . . . .	suit.	sat.	good	1,000	9	e95	85	55	33	12	20	-	120	pr.	
Ashby, . . . . .	suit.	sat.	lim.	1	8	9	7	8	16	-	-	-	24	ex.	
Ashland, . . . . .	suit.	sat.	good	50	9	20	25	19	12	5	9	-	45	pr.	
Ayer, . . . . .	n. s.	sat.	fair	small	8-10	42	44	16	16	10	3	-	45	pr.	
Bedford, . . . . .	-	sat.	small	none	8	22	14	10	10	5	-	-	25	pr.	
Belmont, . . . . .	-	-	-	150	8	39	46	23	28	14	10	-	75	ex.	
Billerica, Howe Academy, . . . . .	suit.	fair	poor	80	8	43	40	18	18	10	8	-	51	ex.	
Cambridge, Classical, . . . . .	suit.	sat.	good	1,000	9	706	558	129	95	68	65	52	409	pr.	
Cambridge, English, . . . . .	suit.	sat.	good	3,200	9	706	558	319	185	123	116	-	743	pr.	
Chelmsford, North, . . . . .	suit.	sat.	none	few	8	35	45	6	15	-	-	-	21	pr.	
Chelmsford, South, . . . . .	n. s.	fair	none	few	8	15	e12	-	4	-	-	-	4	pr.	

MIDDLESEX COUNTY.

TABLE A. — Showing Condition, Equipment, etc. — Continued.

## HAMPSHIRE COUNTY — Continued.

TOWNS.	NUMBER SENT TO						TEACHERS.				SCHOOL DAY.			Length of School Year In Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		COLLEGE.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Reclamation Periods.	
	1896.	1897.	1896.	1897.	1896.	1897.								
Amherst, . . . . .	—	1	—	1	6	9	5	—	—	4	5	1	6	38
Easthampton, . . . . .	—	3	—	2	4	—	3	—	—	2	4½	1	6	40
Granby, . . . . .	—	1	—	—	—	1	1+	—	—	1	6	2	11	36
Hadley, Hopkins Academy, .	—	1	—	—	6	—	2	—	—	1	5½	2	10	34
Northampton, . . . . .	3	2	—	1	6	7	8	—	—	6	—	—	—	—
Southampton, . . . . .	—	—	—	—	—	—	1	—	—	1	5½	2	13	34
South Hadley, . . . . .	—	1	—	1	2	1	2	—	—	2	5	1	8	40
Ware, . . . . .	2	—	—	—	2	—	5	—	—	5	5½	2	6	40
Williamsburg, . . . . .	—	—	—	—	—	—	1+	—	—	1	5½	10	10	36
Williamsburg, Haydenville, .	—	—	—	—	—	—	1+	—	—	1	5½	2	10	36

## MIDDLESEX COUNTY — Continued.

Acton, . . . . .	1	3	—	1	2	—	—	1	6	2	8	36
Arlington, . . . . .	—	3	—	7	6	—	—	4	5	1	5	40
Ashby, . . . . .	—	—	—	—	1	—	—	1	5	1	7	40
Ashland, . . . . .	—	—	—	—	2	—	—	1	5½	2	8	40
Ayer, . . . . .	—	—	—	—	2	—	—	2	5½	2	8	40
Bedford, . . . . .	—	—	—	—	1	—	—	—	5½	1	13	38
Belmont, . . . . .	—	—	—	—	4	—	—	2	5½	1	6	40
Billerica, Howe Academy, .	—	—	—	—	2	—	—	2	4½	1	9	40
Cambridge, Classical, . . .	—	—	—	—	16	—	—	14	5	1	5	40
Cambridge, English, . . .	12	6	13	12	24	4	—	14	5	1	6	40
Chelmsford, North, . . . .	1	—	—	—	1	—	—	—	5½	2	11	36
Chelmsford, South, . . . .	—	—	—	—	1	—	—	1	5½	2	8	36

TABLE A. — *Showing Condition, Equipment, etc.* — Continued.

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.																
	ENGLISH.				SOCIOLOGY.				MATHEMATICS.				LANGUAGES.				
	Literature.	Rhetoric.	Composition.	Grammar.	History.	Civil Government.	Political Economy.	Moral Philosophy.	Algebra.	Geometry.	Trigonometry.	Arithmetic.	Bookkeeping.	Latin.	Greek.	French.	German.
Amherst, . . .	578	L	L	L	*361	*95	—	—	237	275	—	*95	A	*760	*570	—	*380
Easthampton, . .	200	200	140	60	200	120	60	—	280	260	60	—	80	720	600	400	400
Granby, . . .	72	L	130	C	180	100	—	—	180	180	130	—	—	360	180	—	—
Hadley, Hopk. Acad.,	170	80	60	—	170	60	—	—	170	170	—	60	—	680	510	343	—
Northampton, . .	—	—	—	—	265	75	57	57	290	285	—	10	—	720	540	570	—
Southampton, . .	102	—	78	170	170	72	—	—	170	—	—	170	102	170	—	—	—
South Hadley, . .	*160	*125	*200	—	120	48	48	—	250	190	135	—	135	760	570	456	456
Ware, . . .	560	80	—	—	360	160	C	—	200	160	60	—	200	800	600	560	—
Williamsburg, . .	180	120	60	—	180	120	60	—	160	210	—	60	60	540	—	—	—
Williamsburg, Hayd.,	120	60	108	—	120	66	60	60	180	180	—	—	60	540	—	—	—

MIDDLESEX COUNTY — Continued.

Acton, . . .	180	L	180	C	180	60	48	—	180	180	—	12	144	720	—	360	—
Arlington, . . .	+	—	+	—	+	+	—	—	+	+	—	—	+	800	600	+	+
Ashby, . . .	120	120	120	160	280	—	—	—	320	240	—	—	200	800	600	200	—
Ashland, . . .	275	75	140	—	150	—	—	—	150	120	—	50	640	300	300	300	—
Ayer, . . .	320	80	80	—	192	64	—	—	+	160	—	*160	*160	*800	*480	*240	—
Bedford, . . .	225	114	114	—	342	80	—	—	190	190	—	—	40	494	266	266	—
Belmont, . . .	280	C	240	—	240	240	—	—	360	350	—	80	—	800	600	400	400
Billerica, Howe Acad., . . .	320	80	240	—	120	40	—	—	320	200	—	45	—	720	520	180	—
Cambridge, Classical, . . .	320	L	L	—	216	—	—	—	316	292	—	—	—	976	632	376	376
Cambridge, English, . . .	200	100	100	—	100	100	—	—	600	300	—	*200	*200	*800	*400	*400	*400
Chelmsford, North, . . .	360	L	L	L	360	90	—	—	180	180	—	—	360	—	—	—	—
Chelmsford, South, . . .	144	L	L	L	216	54	—	—	216	216	—	—	54	216	—	—	—



TABLE A.—*Showing Condition, Equipment, etc.*—Continued.  
HAMPSHIRE COUNTY—*Concluded.*

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can hear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.	
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.		Miscellaneous.
Amherst, . . . . .	4,092	5,700	4 <sup>3</sup> / <sub>4</sub>	14	11	15	42	14	4	-	Charles Falconer.
Easthampton, . . . . .	4,660	3,600	4 <sup>3</sup> / <sub>4</sub>	13	8	15	45	12	7	-	Alfred B. Morrill.
Granby, . . . . .	2,406	1,980	3 <sup>3</sup> / <sub>4</sub>	8	15	20	23	20	14	-	Bessie M. Hooker.
Hadley, Hopkins Academy, . . . . .	2,853	3,400	4 <sup>3</sup> / <sub>4</sub>	11	8	14	54	13	-	-	H. M. Thayer.
Northampton, . . . . .	4,651	9,600	4 <sup>3</sup> / <sub>4</sub>	13	10	13	40	17	7	-	Clarence B. Roote.
Southampton, . . . . .	1,748	2,210	1 <sup>3</sup> / <sub>4</sub>	20	20	19	10	25	6	-	Minnie H. Bridgman.
South Hadley, . . . . .	4,679	3,040	4 <sup>3</sup> / <sub>4</sub>	10	7	12	48	13	10	-	Walter H. Young.
Ware, . . . . .	5,008	6,000	4 <sup>3</sup> / <sub>4</sub>	13	10	12	39	18	8	-	Samuel W. Hallett.
Williamsburg, . . . . .	2,592	2,592	3 <sup>3</sup> / <sub>4</sub>	14	13	19	21	16	17	-	Albert A. Griffin.
Williamsburg, Haydenville, . . . . .	2,126	2,126	3 <sup>3</sup> / <sub>4</sub>	14	15	20	25	18	8	-	F. E. Smith.

MIDDLESEX COUNTY—*Continued.*

Acton, . . . . .	3,120	3,040	4 <sup>2</sup> / <sub>4</sub>	11	9	17	35	19	9	-	W. A. Charles.
Arlington, . . . . .	-	6,000	4 <sup>3</sup> / <sub>4</sub>	-	-	-	-	-	-	-	-
Ashby, . . . . .	4,264	1,400	4 <sup>3</sup> / <sub>4</sub>	12	6	18	38	15	11	-	Mary A. Dartt.
Ashland, . . . . .	2,980	3,200	4 <sup>3</sup> / <sub>4</sub>	16	5	11	52	11	5	-	Victor V. Thompson.
Ayer, . . . . .	3,607	3,200	3 <sup>3</sup> / <sub>4</sub>	13	7	20	43	13	4	-	A. C. Cummings.
Bedford, . . . . .	2,435	2,470	3 <sup>2</sup> / <sub>4</sub>	17	17	17	32	16	-	-	Minnie C. Potter.
Belmont, . . . . .	4,390	4,800	4 <sup>3</sup> / <sub>4</sub>	12	5	18	50	7	6	2	H. H. Butler.
Billerica, Howe Academy, . . . . .	3,526	3,600	3 <sup>3</sup> / <sub>4</sub>	18	5	15	42	16	5	-	Earl C. Davis.
Cambridge, Classical, . . . . .	4,168	16,000	5 <sup>5</sup> / <sub>4</sub>	8	5	16	59	8	4	-	Wm. F. Bradbury.
Cambridge, English, . . . . .	5,860	24,000	4 <sup>3</sup> / <sub>4</sub>	7	3	22	27	19	8	14	Ray Greene Huling.
Chelmsford, North, . . . . .	1,890	1,980	2 <sup>3</sup> / <sub>4</sub>	9	12	14	39	19	7	-	-
Chelmsford, South, . . . . .	1,404	1,440	2	10	19	35	16	15	5	-	-



TABLE A.—*Showing Condition, Equipment, etc.—Continued.*

MIDDLESEX COUNTY—Continued.

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.							How admitted.
	Buildings.	Sanitary Condi- tions.	Laboratory Fa- cilities.	Reference Li- brary, Volumes.		NUMBER IN HIGH SCHOOL.					Total.		
						NUMBER IN GRAMMAR SCHOOL.							
						Second Year before the High.	Year before the High.	First Year.	Second Year.	Third Year.		Fourth Year.	
Concord,	suit.	sat.	good	small	75	55	e75	e50	e35	e30	-	190	pr.
Everett,	suit.	sat.	good	750	254	173	140	70	44	24	-	278	pr.
Frammingham,	n. s.	sat.	small	small	112	128	110	62	24	28	33	257	pr.
Groton,	suit.	sat.	poor	100	25	20	21	11	13	13	-	58	ex.
Holliston,	suit.	n. sat.	lim.	100	35	21	18	20	9	12	-	59	pr.
Hopkinton,	suit.	sat.	poor	60	30	40	24	18	21	12	-	75	ex.
Hudson,	n. s.	n. sat.	meagre	75	63	48	34	45	14	10	s4	107	pr.
Lexington,	n. s.	n. sat.	fair	200	28	21	16	14	10	12	-	152	pr.
Lincoln,	-	sat.	none	cyclo.	13	11	4	5	3	4	-	16	pr.
Littleton,	fair	sat.	none	few	20	20	12	13	4	6	-	35	pr.
Lowell,	suit.	sat.	good	1,000	645	499	292	200	160	67	s24	743	pr.
Malden,	suit.	sat.	good	1,600	298	244	156	127	80	49	-	412	pr.
Marlborough,	n. s.	sat.	fair	800	130	120	92	51	38	22	-	203	pr.
Maynard,	suit.	sat.	lim.	100	34	23	13	16	6	6	-	41	pr.
Medford,	suit.	sat.	good	700	209	187	127	104	69	34	-	334	pr.
Melrose,	suit.	sat.	fair	50	125	85	76	75	32	43	-	226	pr.
Medrose,	suit.	sat.	lim.	100	e110	e100	96	67	58	21	-	242	pr.
Natick,	suit.	sat.	lim.	100	375	269	258	158	89	110	-	615	pr.
Newton,	-	n. sat.	none	55	4	8	8	4	8	7	-	20	pr.
North Reading,	suit.	sat.	good	small	48	40	-	18	18	7	-	43	pr.
Pepperell,	n. s.	n. sat.	fair	200	71	75	44	39	29	15	-	127	pr.
Reading,	suit.	sat.	fair	-	e600	e500	85	66	61	61	-	273	pr.
Somerville, Classical,	suit.	sat.	good	650	e600	e500	235	162	119	93	-	609	pr.
Somerville, English,	suit.	u. sat.	fair	260	74	64	37	36	21	5	-	99	pr.
Stoneham,	n. s.	n. sat.	none	25	20	18	8	4	4	3	2	21	ex.
Stow,	suit.	sat.	small	100	18	16	7	11	3	8	s2	31	ex.
Sudbury,	suit.	sat.	small	100	18	16	7	11	3	8	s2	31	ex.

TABLE A.—*Showing Condition, Equipment, etc.*—Continued.

MIDDLESEX COUNTY—Continued.

TOWNS.	NUMBER SENT TO						TEACHERS.				SCHOOL DAY.			Length of School Year in Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		COLLEGE.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.	
	1896.	1897.	1896.	1897.	1896.	1897.								
Concord,	2	5	1	1	11	4	7	-	-	6	5	2	6	40
Everett,	1	3	3	3	13	9	10	-	-	8	5	1	5	40
Framingham,	4	3	3	3	6	5	7	-	-	4	5	1	5	40
Groton,	-	1	1	-	-	1	2	-	-	2	5 $\frac{1}{2}$	2	8	38
Holliston,	2	-	-	-	-	-	2	-	-	2	5	1	7	40
Hopkinton,	1	-	-	2	1	-	3	-	-	1	5	1	6	40
Hudson,	-	-	-	-	-	-	4	-	-	3	5	1	6	40
Lexington,	1	-	-	-	-	-	4	-	-	2	4 $\frac{1}{2}$	1	6	38
Lincoln,	-	-	-	-	-	-	1	-	-	1	5 $\frac{1}{2}$	2	11	38
Littleton,	-	-	-	-	-	-	2	-	-	2	6	2	8	40
Lowell,	-	50	-	10	-	20	25	-	-	24	4 $\frac{1}{2}$	1	5	40
Malden,	3	5	10	6	5	3	18	-	-	10	5	1	5	40
Marlborough,	4	5	2	2	5	4	7	-	-	3	5	1	6	40
Maynard,	-	2	2	-	-	-	3	-	-	3	5	2	7	40
Medford,	1	7	2	-	6	6	20	-	-	14	5	1	6	40
Melrose,	2	2	3	2	5	6	9	-	-	3	5	1	3	40
Natick,	3	4	2	-	13	10	9	-	-	6	5	1	5	40
Newton,	-	-	12	17	39	40	21	-	-	15	5 $\frac{1}{2}$	2	11	36
North Reading,	1	1	-	-	-	-	1	-	-	-	5 $\frac{1}{2}$	1	5	40
Pepperell,	-	-	-	-	-	-	3	-	-	3	5	1	8	40
Reading,	1	2	1	1	1	1	6	-	-	3	5	1	6	40
Somerville, Classical,	1	3	1	-	30	35	9	-	-	5	5	1	5	40
Somerville, English,	6	1	5	9	5	5	22	-	-	13	5	1	6	40
Stoneham,	-	1	-	2	1	3	4	-	-	2	4 $\frac{3}{4}$	1	6	40
Stow,	-	-	-	2	-	-	1	-	-	1	5 $\frac{1}{2}$	2	11	36
Sudbury,	-	-	-	-	-	-	2	-	-	2	5	2	7	36

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
MIDDLESEX COUNTY — *Continued.*

TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.

TOWNS.	ENGLISH.			SOCIOLOGY.				MATHEMATICS.				LANGUAGES.					
	Literature.	Rhetoric.	Composition.	Grammar.	History.	Civil Government.	Political Economy.	Moral Philosophy.	Algebra.	Geometry.	Trigonometry.	Arithmetic.	Bookkeeping.	Latin.	Greek.	French.	German.
Concord, . . . . .	360	120	160	—	400	80	—	—	+280	240	—	+200	*160	*700	*600	*360	*240
Everett, <sup>1</sup> . . . . .	240	120	120	*160	*280	—	—	—	280	280	—	*120	*240	*800	*600	*360	*360
Frammingham, . . . . .	280	80	200	—	*600	*100	—	—	*320	*300	—	*100	*100	*800	*600	*600	*400
Groton, . . . . .	380	114	—	190	294	60	—	—	240	180	—	120	60	720	540	294	—
Holliston, . . . . .	400	L	L	L	*160	*160	—	—	200	200	—	—	*160	*800	*600	*360	—
Hopkinton, . . . . .	280	160	120	—	220	60	60	—	224	160	—	30	—	800	600	320	160
Hudson, . . . . .	190	114	142	C	130	60	—	—	190	152	—	190	190	720	570	456	—
Lexington, . . . . .	280	40	140	*80	*360	120	—	—	+240	190	—	—	*80	720	*520	+320	—
Lincoln, . . . . .	—	—	—	—	114	70	—	—	190	190	—	70	70	760	—	—	190
Littleton, . . . . .	320	80	80	—	+192	64	—	—	+256	+160	—	*160	*160	*800	*480	240	—
Lowell, . . . . .	400	L	200	200	350	100	—	—	300	300	—	100	20	800	600	600	200
Malden, . . . . .	600	200	R	R	*360	*120	*80	—	*320	*360	—	*80	*240	*800	*600	*600	*600
Marlborough, <sup>2</sup> . . . . .	320	80	200	40	160	80	80	—	160	160	—	120	200	640	480	320	—
Maynard, . . . . .	300	200	200	—	130	65	52	—	200	200	—	40	28	750	420	255	—
Medford, . . . . .	640	—	160	—	—	*120	—	—	240	240	—	80	80	800	600	640	320
Melrose, . . . . .	200	C	200	C	400	80	C G	—	400	240	—	—	*80	*720	*560	*360	*320
Natick, . . . . .	—	—	—	—	560	—	—	—	180	280	—	—	—	680	480	400	400
Newton, <sup>3</sup> . . . . .	480	—	—	L	320	—	*80	80	*220	*200	*120	+120	+120	*720	*600	*720	*720
North Reading, . . . . .	144	72	144	L	144	—	—	—	180	180	—	90	90	432	—	—	—
Pepperell, . . . . .	200	64	—	80	300	48	48	48	160	108	84	36	96	620	430	268	268
Reading, . . . . .	400	160	—	—	360	120	60	—	360	320	—	—	*120	800	480	400	—
Somerville, Classical, . . . . .	320	L	L	L	240	—	—	—	280	280	—	—	—	800	+600	+400	+600
Somerville, English, <sup>4</sup> . . . . .	640	L	L	L	480	60	—	40	*320	*320	*80	*80	*400	*680	—	*680	*680
Stonham, . . . . .	320	—	160	—	160	48	—	—	160	160	—	—	—	640	480	480	—
Stow, . . . . .	170	100	R	100	125	80	—	—	175	100	—	100	50	*510	—	—	—
Sudbury, . . . . .	432	L	L	L	432	*54	—	—	+216	108	—	54	54	504	—	324	*216

<sup>1</sup> Everett has also Psychology, 80; Commercial Law and Banking, 240.<sup>2</sup> Marlborough has also Rhetoricals, 160.<sup>3</sup> Newton has also Elocution, 80; Commercial Law, 80; Psychology, 80.<sup>4</sup> Somerville has also Elocution, 40; Commercial Law, 80.



TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
MIDDLESEX COUNTY — *Continued.*

TOWNS.	No. of Recitation Periods per Year Required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can bear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.	
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.		Miscellaneous.
Concord, . . . . .	5,040	8,400	4 <sup>1</sup> / <sub>2</sub>	13	10	17	38	19	3	14	Wm. L. Eaton.
Everett, . . . . .	6,150	10,000	3 <sup>1</sup> / <sub>2</sub> , 4 <sup>1</sup> / <sub>2</sub>	9	5	15	35	14	7	-	Wilbur J. Rockwood.
Framingham, . . . . .	6,040	8,400	5 <sup>1</sup> / <sub>2</sub>	9	12	14	39	19	4	-	J. H. Parsons.
Groton, . . . . .	4,014	3,040	4 <sup>1</sup> / <sub>2</sub>	20	9	17	38	12	4	-	J. H. Manning.
Holliston, . . . . .	3,968	2,800	4	10	8	14	45	19	4	-	-
Hopkinton, . . . . .	3,834	3,600	4 <sup>1</sup> / <sub>2</sub>	14	9	11	49	13	4	-	E. M. Johnson.
Hudson, . . . . .	4,278	4,560	2, 4 <sup>1</sup> / <sub>2</sub>	10	4	19	41	10	7	9	Charles A. Williams.
Lexington, . . . . .	3,960	4,800	4 <sup>1</sup> / <sub>2</sub>	14	12	13	39	16	6	-	J. I. Buck.
Lincoln, . . . . .	-	-	3, 4	-	-	-	-	-	-	-	Ernest W. Small.
Littleton, . . . . .	3,616	3,200	3, 4 <sup>1</sup> / <sub>2</sub>	13	7	21	42	13	4	-	W. E. Gate.
Lowell, . . . . .	5,880	25,000	3, 4 <sup>1</sup> / <sub>2</sub> , 5	14	8	11	38	16	13	-	Cyrus W. Irish.
Malden, . . . . .	6,760	18,000	4 <sup>1</sup> / <sub>2</sub>	12	8	15	38	14	4	9	John W. Hutchins.
Marlborough, . . . . .	4,320	8,400	4 <sup>1</sup> / <sub>2</sub>	15	7	15	33	15	4	11	W. F. O'Connor.
Maynard, . . . . .	4,112	4,200	3, 4	17	6	11	39	20	7	-	J. Henry White.
Medford, . . . . .	5,560	16,800	4, 4 <sup>1</sup> / <sub>2</sub>	14	2	12	42	19	9	2	Lorin L. Dame.
Melrose, . . . . .	4,560	9,000	3, 4 <sup>1</sup> / <sub>2</sub>	9	10	16	44	18	3	-	F. H. Beede.
Natick, . . . . .	-	10,800	3, 4 <sup>1</sup> / <sub>2</sub>	-	-	-	-	-	-	-	Horace W. Rice.
Newton, . . . . .	6,300	21,000	2, 4 <sup>1</sup> / <sub>2</sub>	7	8	12	44	13	8	8	Enoch C. Adams.
North Reading, . . . . .	1,908	1,980	3	19	8	28	23	11	11	-	Clara B. Holden.
Pepperell, . . . . .	3,740	4,800	4 <sup>1</sup> / <sub>2</sub>	9	12	13	42	11	7	5	Alfred O. Tower.
Reading, . . . . .	4,940	7,200	4 <sup>1</sup> / <sub>2</sub>	13	11	18	34	16	6	-	F. E. Whittemore.
Somerville, Classical, . . . . .	3,920	9,000	4 <sup>1</sup> / <sub>2</sub>	8	6	15	61	6	4	-	George L. Baxter.
Somerville, English, . . . . .	9,600	22,000	4	7	6	13	21	26	4	4	C. T. C. Whitcomb.
Stoneham, . . . . .	3,100	4,800	2, 3, 4	15	7	10	52	12	4	-	Charles J. Emerson.
Stow, . . . . .	2,060	1,980	4	18	10	20	25	18	9	-	-
Sudbury, . . . . .	2,664	2,520	4 <sup>1</sup> / <sub>2</sub>	16	18	16	40	10	-	-	-



TABLE A — Showing Condition, Equipment, etc.—Continued.  
MIDDLESEX COUNTY—Continued.

TOWNS.	NUMBER SENT TO						TEACHERS.				SCHOOL DAY.			Length of School Year in Weeks.	
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		COLLEGE.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.		
	1896.	1897.	1896.	1897.	1896.	1897.									
Tewksbury,	1	3	-	1	1	1	2	1	-	-	1	5	2	8	36
Townsend,	-	-	2	-	-	-	2	1	-	-	2	5	1	9	40
Wakefield,	1	1	-	4	-	4	7	1	-	-	6	5	1	6	40
Waltham,	1	1	2	3	4	9	11	1	-	-	8	5	1	5	40
Watertown,	-	-	-	3	1	5	5	1	-	-	4	5	1	5	40
Westford,	-	-	-	1	-	-	2	1	-	-	1	5	1	7	39
Weston,	-	1	4	1	1	-	3	-	-	-	2	5	1	7	38
Wilmington,	-	-	-	-	-	-	1+	-	-	-	1	5	1	9	40
Winchester,	-	-	-	-	-	4	9	1	-	-	7	4 <sup>3</sup>	1	6	40
Woburn,	-	1	1	7	5	7	9	1	-	-	6	5	1	6	40

## NORFOLK COUNTY—Continued.

Avon,	-	-	-	-	-	-	2	2	-	-	5 <sup>1</sup>	1	7	36
Bellingham,	-	-	-	-	-	-	1	1	-	-	5	1	14	40
Braintree,	-	-	-	-	-	-	4	1	-	-	5	1	6	40
Brookline,	-	-	5	9	13	17	16	2	-	11	5	1	6	40
Canton,	-	-	1	-	-	-	3	-	-	3	5	1	6	40
Cohasset,	-	2	1	-	2	-	3	-	-	2	5	1	8	40
Dedham,	3	1	1	5	4	3	7	-	-	1	4 <sup>1</sup>	1	5	40
Dover,	1	2	-	-	-	-	1	1	-	1	5 <sup>2</sup>	2	8	40
Foxborough,	2	1	-	-	-	-	3	1	-	3	5	2	7	38
Franklin,	1	1	2	1	3	2	4	1	-	2	4 <sup>1</sup>	1	6	40
Holbrook,	3	2	-	-	2	1	3	-	-	2	5	2	6	40





TABLE A. — Showing Condition, Equipment, etc. — Continued.

## MIDDLESEX COUNTY — Continued.

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.																
	SCIENCES.								ART AND MUSIC.			MISCELLANEOUS.					
	Physics.	Chemistry.	Botany.	Geology.	Astronomy.	Zoology.	Physiology.	Physical Geography.	Political Geography.	Drawing.	Color.	Musie.	Manual Training.	Stenogra-phy.	Type-writ-ing.	Penman-ship.	Physical Culture.
Tewksbury,	160	84	36	60	—	—	60	120	Ph. G.	160	—	160	—	80	80	—	—
Townsend,	160	160	48	60	60	68	44	—	—	160	—	40	—	—	—	40	—
Wakefield,	*160	*160	*120	*80	*80	—	80	*160	—	*120	—	160	—	190	190	—	—
Waltham,	456	264	76	—	152	—	—	—	—	76	—	152	760	320	*160	—	—
Watertown,	*320	*160	*80	—	—	*80	—	156	78	120	40	160	—	—	—	—	—
Westford,	98	98	78	—	78	176	52	100	—	152	—	152	—	—	—	—	—
Weston,	456	266	52	52	76	—	—	—	—	—	—	daily	—	—	—	—	—
Wilmington,	84	24	48	24	*65	*65	*65	*65	—	*195	—	*195	—	—	—	—	—
Winchester,	*117	*117	*65	*65	80	80	80	80	—	*40	—	160	—	*120	*80	—	—
Woburn,	160	160	160	80	—	—	—	—	—	—	—	—	—	—	—	—	—

## NORFOLK COUNTY — Continued.

Avon,	108	108	33	33	—	33	33	—	—	75	—	144	—	—	—
Bellingham,	—	—	—	—	—	—	—	—	—	240	—	320	—	80	—
Brintree,	*320	*160	*80	*80	*80	*80	80	—	—	*160	—	—	*160	—	—
Brookline,	*156	*156	*74	64	—	*78	—	—	—	*78	—	—	—	—	—
Canton,	160	160	96	—	—	—	72	48	—	160	—	160	—	—	—
Cohasset,	200	200	120	—	80	Phy.	120	120	—	160	—	160	—	—	—
Dedham,	*160	*160	40	40	60	—	40	—	—	160	*160	160	—	—	—
Dover,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Foxborough,	*224	*72	42	*54	*57	*57	76	38	38	+	—	+	—	—	—
Franklin,	*260	*140	*60	*140	*80	*60	—	*90	—	160	—	152	*200	—	—
Holbrook,	200	140	65	65	65	—	—	80	—	—	200	320	—	—	200

1 Brookline has also Domestic Science, 429.

TABLE A. — Showing Condition, Equipment, etc. — Continued.

## MIDDLESEX COUNTY — Concluded.

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can hear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR							Principal, September, 1897.
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.	Miscellaneous.	
Tewksbury, .	3,080	2,880	4	12	13	17	31	17	10	—	Ida C. Gleason.
Townsend, .	4,308	3,600	4 <sup>1</sup>	10	8	21	40	14	4	3	Amy Sanders Lane.
Wakefield, .	4,320	8,400	4 <sup>3</sup>	13	10	14	37	20	6	—	Charles H. Howe.
Waltham, .	5,736	11,000	2, 3, 4 <sup>1</sup>	8	7	11	34	16	4	20	Wilson R. Butler.
Watertown, .	5,030	5,000	2, 4 <sup>3</sup>	6	8	13	45	12	6	10	Frank W. Whitney.
Westford, .	4,845	2,800	4 <sup>3</sup>	24	8	16	40	12	—	—	Wm. E. Frost.
Weston, .	4,286	3,960	4 <sup>3</sup>	15	10	7	35	26	7	—	Charles M. Eaton.
Wilmington, .	1,912	1,800	3	16	9	20	37	10	8	—	William L. Jones.
Winchester, .	7,002	10,800	5	14	16	11	44	9	6	—	Edwin N. Lovering.
Woburn, .	5,180	10,800	4 <sup>2</sup>	12	7	14	42	17	4	4	L. Herbert Owen.

## NORFOLK COUNTY — Continued.

Avon, .	2,298	2,520	4 <sup>2</sup>	13	11	20	31	15	10	—	John Carroll.
Bellingham, .	2,200	2,800	2 <sup>2</sup>	20	14	26	18	11	11	8	Irving W. Horne.
Braintree, .	5,924	4,800	3-5 <sup>2</sup>	11	8	15	35	15	8	—	D. S. Sanford.
Brookline, .	4,963	16,800	4 <sup>1</sup>	7	15	10	48	9	2	9	Elmer H. Brackett.
Canton, .	3,400	3,600	3, 4 <sup>2</sup>	13	9	18	33	18	9	—	C. F. Jacobs.
Cohasset, .	4,260	4,800	4 <sup>3</sup>	12	8	14	30	12	20	4	George F. Joyce.
Dedham, .	4,200	7,000	4 <sup>1</sup>	11	10	14	41	13	11	—	Grace I. Coombs.
Dorset, .	—	—	2 <sup>1</sup>	—	—	—	—	—	—	—	W. E. Horton.
Foxborough, .	3,721	3,990	4 <sup>3</sup>	12	10	19	38	20	6	6	Ernest D. Daniels.
Franklin, .	6,230	4,800	3, 4 <sup>3</sup>	10	7	22	37	10	8	—	E. Osborn Hopkins.
Holbrook, .	3,615	3,600	3, 4 <sup>2</sup>	13	4	17	44	17	5	—	

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*NORFOLK COUNTY — *Continued.*

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.						How admitted.			
	Buildings.	Sanitary Condi- tions.	Laboratory Fa- cilities.	Reference Li- brary, Volumes.		NUMBER IN HIGH SCHOOL.									
						GRAMMAR SCHOOL.									
						Second Year before the High.	Year before the High.	First Year.	Second Year.	Third Year.	Fourth Year.		Fifth Year.	Total.	
Hyde Park,	n. s.	n. sat.	lim.	125	8	e120	e90	81	44	31	31	4	191	ex.	
Medfield,	suit.	sat.	none	30	9	13	15	15	4	11	11	-	30	ex.	
Medway,	n. s.	poor	poor	few	9	30	24	18	9	11	7	7	7	52	ex.
Milton,	suit.	sat.	good	1,000	8	95	75	48	41	28	23	9	140	pr.	
Needham,	-	fair.	fair	250	9	e50	e40	58	17	16	9	-	102	pr.	
Norfolk,	suit.	sat.	poor	12	9	16	3	3	7	-	-	-	10	ex.	
Norwood,	suit.	sat.	good	200	8	77	60	31	30	29	18	-	108	pr.	
Quincy,	small	sat.	good	150	8	394	284	222	119	49	35	2	427	pr.	
Randolph,	n. s.	fair	poor	50	8	54	49	37	24	23	16	-	100	ex.	
Sharon,	fair	fair	none	50	8	13	15	14	5	3	6	-	28	ex.	
Stoughton,	suit.	sat.	fair	300	9	47	34	29	26	8	9	2	68	ex.	
Walpole,	n. s.	sat.	poor	30	8	25	40	40	24	14	12	-	90	pr.	
Wellesley,	suit.	sat.	good	100	8	47	42	32	16	14	11	-	73	ex.	
Weymouth Centre,	n. s.	n. sat.	poor	100	9	112	79	74	51	30	16	-	171	pr.	
Weymouth, South,	n. s.	n. sat.	poor	100	9	46	31	43	26	19	12	-	100	pr.	
Wrentham Centre,	suit.	sat.	poor	40	8	16	19	16	17	2	2	-	37	pr.	
Wrentham Plain,	suit.	sat.	good	30	8	51	47	17	16	10	6	-	49	pr.	

## PLYMOUTH COUNTY.

Abington,	suit.	sat.	good	100	8	82	75	40	25	21	12	—	98
Bridgewater,	suit.	fair	good	200	9	40	37	23	20	12	15	—	70
Brockton,	n. s.	poor	fair	325	9	319	284	195	127	87	57	—	466
Duxbury,	n. s.	fair	poor	200	8	14	13	11	14	2	—	—	27
Hanover,	suit.	sat.	none	50	9	e15	14	—	17	8	—	—	25

TABLE A.—*Showing Condition, Equipment, etc.*—Continued.  
NORFOLK COUNTY—Continued.

TOWNS.	NUMBER SENT TO				TEACHERS.				SCHOOL DAY.			Length of School Year in Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.	
	1896.	1897.	1896.	1897.								
Hyde Park, . . . . .	1	1	3	1	8	—	—	1	6	1	6	40
Medfield, . . . . .	—	1	—	—	1	—	—	—	1	2	10	36
Medway, . . . . .	—	—	1	—	2	—	—	—	1	2	8	40
Milton, . . . . .	—	—	—	—	7	1	1	—	6	2	6	40
Needham, . . . . .	—	2	1	—	5	—	—	—	3	1	6	40
Norfolk, . . . . .	—	—	—	—	3	—	—	—	—	2	10	33
Norwood, . . . . .	1	1	—	—	4	1	—	—	2	1	6	39
Quincy, . . . . .	5	5	—	—	11	3	—	—	6	1	6	40
Randolph, . . . . .	—	—	—	—	3	—	—	—	2	2	6	36
Sharon, . . . . .	—	—	—	—	1	—	—	—	1	2	8	40
Stoughton, . . . . .	1	—	—	—	3	1	—	—	2	1	6	40
Walpole, . . . . .	1	1	—	—	3	1	—	—	2	1	6	40
Wellesley, . . . . .	1	—	—	—	4	—	—	—	4	1	6	40
Weymouth Centre, . . . . .	4	5	3	1	4	—	—	—	5½	1	6	40
Weymouth South, . . . . .	—	—	—	—	3	—	—	—	5½	2	7	40
Wrentham Centre, . . . . .	—	—	—	—	1	—	—	—	5½	2	18	38
Wrentham Plain, . . . . .	—	1	—	—	2	—	—	—	6	2	9	38
PLYMOUTH COUNTY — Continued.												
Abington, . . . . .	—	8	—	—	4	—	—	—	5	1	6	40
Bridgewater, . . . . .	4	3	—	—	5	3	—	—	5	2	6	40
Brockton, . . . . .	3	8	6	2	17	4	1	—	4½	1	5	40
Duxbury, . . . . .	—	1	—	1	2	—	—	—	5½	1	10	40
Hanover, . . . . .	1	—	—	—	2	—	—	—	5½	2	8	40

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
 NORFOLK COUNTY — *Continued.*

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.									
	ENGLISH.			SOCIOLOGY.			MATHEMATICS.			
	Literature.	Rhetoric.	Composition.	Grammar.	History.	Civil Government.	Political Economy.	Moral Philosophy.	Algebra.	Geometry.
LANGUAGES.										
Latin.										
Greek.										
French.										
German.										
Bookkeeping.										
Arithmetic.										
Trigonometry.										
Algebra.										
Geometry.										
Trigonometry.										
Arithmetic.										
Bookkeeping.										
Latin.										
Greek.										
French.										
German.										

PLYMOUTH COUNTY — <i>Continued.</i>										
Latin.										
Greek.										
French.										
German.										
Bookkeeping.										
Arithmetic.										
Trigonometry.										
Algebra.										
Geometry.										
Trigonometry.										
Arithmetic.										
Bookkeeping.										
Latin.										
Greek.										
French.										
German.										

<sup>1</sup> Quincy has also Rhetoricals, 120.

<sup>2</sup> Weymouth has also Rhetoricals, 160.



TABLE A. — *Showing Condition, Equipment, etc. — Continued.*NORFOLK COUNTY — *Concluded.*

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can bear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.	
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.		Miscellaneous.
Hyde Park, . . . . .	5,460	9,600	2, 4 <sub>4</sub>	11	7	22	36	14	3	7	W. H. Angleton.
Medfield, . . . . .	1,785	1,800	3	18	16	18	43	5	-	-	Daniel G. Munson.
Medway, . . . . .	4,090	3,800	4	14	6	14	54	14	-	-	Wm. J. Fisher.
Milton, . . . . .	6,140	8,400	4	11	13	10	34	17	5	10	Emory L. Meade.
Needham, . . . . .	4,260	3,600	4, 5	11	11	9	54	11	4	-	William Hollis Godfrey.
Norfolk, . . . . .	1,418	1,650	2 <sub>2</sub>	13	24	23	19	21	-	-	F. C. Jones.
Norwood, . . . . .	3,761	4,644	4 <sub>3</sub>	14	5	18	46	13	4	-	A. C. Russell.
Quincy, . . . . .	6,255	12,100	2, 4 <sub>3</sub>	8	7	19	42	11	5	8	Frederic A. Tupper.
Randolph, . . . . .	3,324	3,240	4 <sub>3</sub>	10	6	15	43	17	9	-	Fred E. Chapin.
Stoughton, . . . . .	2,880	1,600	4	12	7	19	35	10	17	-	H. S. Freeman.
Stoughton, . . . . .	3,969	3,600	2, 4 <sub>3</sub>	16	8	14	41	15	6	-	Arthur D. Arnold.
Walpole, . . . . .	3,436	3,600	4 <sub>2</sub>	19	8	15	41	13	4	-	Allen Latham.
Wellesley, . . . . .	3,840	4,800	4 <sub>3</sub>	13	8	13	52	8	8	-	Seldon L. Brown.
Weymouth Centre, . . . . .	3,784	4,800	4 <sub>3</sub>	16	9	12	39	16	8	-	E. J. Bugbee.
Weymouth, South, . . . . .	3,376	4,200	4 <sub>3</sub>	15	10	13	39	18	5	-	Wm. Mackintosh.
Wrentham Centre, . . . . .	2,549	3,420	3, 4	18	10	12	30	24	6	-	F. C. Stewart.
Wrentham Plain, . . . . .	3,277	3,420	3, 4	17	12	17	23	18	13	-	W. A. Woodward.

PLYMOUTH COUNTY — *Continued.*

Abington, . . . . .	5,240	4,800	4	20	10	14	33	12	11	—	Reuben L. Isley.
Bridgewater, . . . . .	4,528	6,000	4	15	9	10	36	15	9	6	Melville A. Stone.
Brockton, . . . . .	6,680	17,000	4	12	10	12	29	15	3	19	Edward Parker.
Duxbury, . . . . .	—	—	—	—	—	—	—	—	—	—	Thos. H. H. Knight.
Hanover, . . . . .	2,760	3,200	3	17	14	12	42	10	5	—	Herman W. Knox.

TABLE A. — Showing Condition, Equipment, etc. — Continued.  
PLYMOUTH COUNTY — Continued.

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.							How admitted.	
	Building.	Sanitary Condi- tions.	Laboratory Fa- cilities.	Reference Li- brary, Volumes.		NUMBER IN GRAMMAR SCHOOL.		NUMBER IN HIGH SCHOOL.						
						Second Year before the High.	Year before the High.	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.		Total.
Hingham,	fair	n. sat.	lim.	small	9	49	31	21	18	14	-	88	ex.	
Kingston,	n. s.	n. sat.	poor	200	8	19	31	13	8	14	-	62	pr.	
Marshfield,	suit.	sat.	poor	-	8	25	20	10	8	9	-	34	ex.	
Mattapoisett,	n. s.	n. sat.	none	25	9	20	15	3	-	4	-	17	ex.	
Middleborough,	fair	fair	fair	150	9	48	37	47	33	21	s1	120	pr.	
Norwell,	n. s.	fair	poor	50	8	e19	e16	13	9	10	-	44	ex.	
Pembroke,	suit.	sat.	none	-	8	28	18	6	-	-	-	12	ex.	
Plymouth,	suit.	sat.	lim.	400	9	107	72	46	39	31	9	150	pr.	
Rockland,	small	sat.	good	100	9	93	66	59	49	31	-	159	pr.	
Scituate,	suit.	sat.	fair	50	8	e33	e22	10	8	13	-	46	pr.	
Wareham,	suit	sat.	lim.	150	8	e42	e37	24	21	15	-	63	ex.	
Whitman,	suit.	sat.	fair	small	8	107	67	72	32	11	3	168	pr.	
SUFFOLK COUNTY.														
Boston —					6	(4,241)	(3,230)	71	156	212	128	*118	635	pr.
Boys' Latin, <sup>1</sup>	suit.	sat.	good	5,000	9	(4,241)	(3,230)	492	228	175	52	-	947	pr.
Boys' English High,	suit.	sat.	good	1,500	9	33	65	109	68	38	38	-	253	pr.
Girls' Latin,	n. s.	fair	good	1,000	8	4,241	3,230	476	236	175	87	-	974	pr.
Girls' English High,	n. s.	fair	good	5,000	9	4,241	3,230	175	121	35	-	-	331	pr.
Mechanic Arts,	suit.	sat.	fair	200	9	4,241	3,230	265	151	54	-	-	591	pr.
Roxbury High,	suit.	sat.	good	3,000	9	4,241	3,230	160	73	28	54	-	320	pr.
Dorchester High,	n. s.	fair	good	2,500	9	4,241	-	118	81	52	25	-	276	pr.
Charlestown High,	fair	fair	good	2,000	9	-	-	123	63	44	18	-	248	pr.
West Roxbury High,	-	-	-	850	9	-	-	-	-	-	-	-	-	pr.

<sup>1</sup> Boston, Boys' Latin; 5th year 67 pupils, 6th year 51 pupils.



TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
PLYMOUTH COUNTY — *Continued.*

TOWNS.	NUMBER SENT TO						TEACHERS.				SCHOOL DAY.			Length of School Year in Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		COLLEGE.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Gradu- ates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.	
	1896.	1897.	1896.	1897.	1896.	1897.								
Hingham, . . . . .	2	3	-	1	4	6	4	-	-	3	5	1	6	40
Kingston, . . . . .	-	-	-	-	-	-	2	-	-	1	5 $\frac{1}{2}$	2	8	40
Marshfield, . . . . .	1	1	-	-	-	-	2	1	-	1	5 $\frac{1}{2}$	2	9	36
Mattapoisett, . . . . .	-	-	-	-	-	-	1	-	-	1	5 $\frac{1}{2}$	2	11	38
Middleborough, . . . . .	-	5	-	-	-	-	4	1	-	2	5	1	6	40
Norwell, . . . . .	1	-	-	-	2	-	2	-	-	2	5	1	8	38
Pembroke, . . . . .	1	-	-	-	2	-	1	1	-	3	5	1	9	36
Plymouth, . . . . .	-	2	-	1	4	3	6	1	-	2	5	2	6	40
Rockland, . . . . .	1	1	-	-	3	-	4	1	-	2	5	2	6	40
Scituate, . . . . .	1	1	-	-	-	-	2	-	-	2	5	2	9	38
Wareham, . . . . .	1	-	-	1	-	-	2	-	-	2	5	1	8	36
Whitman, . . . . .	-	-	-	3	5	2	5	-	-	5	5	1	6	40

SUFFOLK COUNTY — *Continued.*

Boston --												
Boys' Latin, . . . . .	-	-	1	1	22	-	-	22	1	4	40	
Boys' English High, . . . . .	-	3	23	15	27	2	-	27	1	5	40	
Girls' Latin, . . . . .	-	60	-	-	13	15	-	6	1	5	40	
Girls' English High, . . . . .	60	-	15	6	28	2	2	5	1	5	40	
Mechanic Arts, . . . . .	-	26	8	6	14	8	-	7	1	5	40	
Roxbury High, . . . . .	19	8	2	2	20	2	-	7	1	5	40	
Dorchester High, . . . . .	8	10	1	1	10	4	-	4	1	5	40	
Charlestown High, . . . . .	12	10	2	1	10	4	1	4	1	5	40	
West Roxbury High, . . . . .	6	3	-	-	8	4	-	5	1	5	40	

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
PLYMOUTH COUNTY — *Continued.*

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.										LANGUAGES.						
	ENGLISH.			SOCIOLOGY.			MATHEMATICS.				LANGUAGES.						
	Literature.	Rhetoric.	Composition.	Grammar.	History.	Civil Govern-ment.	Political Economy.	Moral Phil-osophy.	Algebra.	Geometry.	Trigonon-ometry.	Arithmetic.	Bookkeep-ing.	Latin.	Greek.	French.	German.
Hingham, . . . . .	502	30	160	48	400	60	-	-	280	280	-	40	40	*800	*600	400	-
Kingston, . . . . .	360	120	28	-	280	45	42	-	280	280	-	100	40	*400	-	240	-
Marshfield, . . . . .	432	132	288	120	152	50	-	-	180	120	-	60	96	700	-	280	228
Mattapoisett, . . . . .	190	190	-	-	190	120	-	-	190	190	-	*80	*60	760	600	380	-
Middleborough, . . . . .	200	80	80	-	320	120	-	-	*320	132	*60	114	72	800	400	400	-
Norwell, . . . . .	456	152	76	114	342	54	-	-	152	152	-	-	50	608	-	456	-
Pembroke, . . . . .	60	36	+	+	196	60	+	+	144	80	-	+	72	288	-	+	+
Plymouth, . . . . .	+	+	+	+	380	48	27	-	+	240	-	96	*72	+	+	+	+
Rockland, . . . . .	480	48	-	64	60	50	50	-	200	150	50	50	+	*760	*450	360	-
Scituate, . . . . .	300	L	+	+	+	+	-	-	200	150	+	+	+	+	+	+	+
Wareham, . . . . .	+	120	160	80	520	120	-	-	360	280	-	160	200	720	400	440	-
Whitman, . . . . .	280	120	160	80	520	120	-	-	360	280	-	160	200	720	400	440	-
Boston —																	
Boys' Latin, . . . . .	720	L	L	L	-	-	-	-	360	200	-	240	-	1,000	667	360	200
Boys' Eng. High, . . . . .	280	40	L	-	240	80	-	-	400	280	80	-	80	*160	-	560	240
Girls' Latin, . . . . .	720	L	L	L	400	-	-	-	300	200	-	280	-	*1,080	*600	300	*600
Girls' Eng. High, . . . . .	480	L	L	L	320	40	-	-	*260	*300	-	-	-	*320	-	*520	*520
Mechanic Arts, . . . . .	300	L	L	-	100	100	-	-	200	400	100	-	-	-	-	300	-
Roxbury High, . . . . .	480	L	L	-	320	40	-	-	*200	*160	75	-	75	*560	*160	*560	*560
Dorchester High, . . . . .	480	L	L	-	300	40	-	-	190	225	75	-	75	*560	*560	*560	*560
Charlestown High, . . . . .	532	L	L	L	228	38	-	-	*228	114	*76	-	60	*532	-	*532	*532
W. Roxbury High, . . . . .	456	L	L	L	*324	38	-	-	*228	*228	*38	-	-	*570	*228	*570	*570

SUFFOLK COUNTY — *Continued.*



TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
PLYMOUTH COUNTY — *Concluded.*

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can hear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.	Miscellaneous.
Hingham, . . . . .	4,756	4,800	4 <sup>3</sup>	16	10	13	38	13	10	-
Kingson, . . . . .	2,637	3,200	4 <sup>2</sup>	18	14	23	24	15	6	-
Marshfield, . . . . .	3,418	3,340	4 <sup>2</sup>	28	6	12	29	15	10	-
Mattapoisett, . . . . .	3,098	2,090	4 <sup>2</sup>	12	6	14	45	18	5	-
Middleborough, . . . . .	4,360	4,800	4 <sup>3</sup>	8	10	20	41	17	4	-
Norwell, . . . . .	3,410	3,040	4 <sup>2</sup>	24	12	14	31	15	4	-
Pembroke, . . . . .	1,418	1,618	2 <sup>2</sup>	7	18	19	20	31	5	-
Plymouth, . . . . .	-	-	4 <sup>3</sup>	14	11	15	38	15	7	-
Rockland, . . . . .	4,047	4,800	4 <sup>3</sup>	9	5	14	45	22	5	-
Selkate, . . . . .	3,161	3,520	4 <sup>2</sup>	9	5	14	45	22	5	-
Wareham, . . . . .	-	-	4 <sup>2</sup>	13	13	-	-	15	6	-
Whitman, . . . . .	4,820	6,000	4 <sup>5</sup>	13	13	21	32	15	6	-

SUFFOLK COUNTY — *Continued.*

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can hear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.	Miscellaneous.
Boston —										
Boys' Latin, . . . . .	4,227	17,600	6	17	0	19	53	11	7	-
Boys' English High, . . . . .	3,240	27,000	4	9	10	26	30	18	4	-
Girls' Latin, . . . . .	4,810	13,000	4	15	8	16	54	3	11	-
Girls' English High, . . . . .	4,320	28,000	4	11	8	15	36	19	11	-
Mechanic Arts, . . . . .	3,200	16,800	3	10	6	21	10	3	50	-
Roxbury High, . . . . .	4,375	20,000	3 <sup>2</sup>	11	8	10	42	18	11	-
Dorchester High, . . . . .	4,278	10,000	4	11	8	13	39	18	11	-
Charlestown High, . . . . .	3,759	10,000	4	14	7	13	43	11	11	-
West Roxbury High, . . . . .	4,386	8,000	4 <sup>3</sup>	10	8	11	44	18	9	-

TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
SUFFOLK COUNTY — *Continued.*

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.										How admitted.
	Buildings.	Sanitary Condi- tions.	Laboratory Pa- cilities.	Reference Li- brary. Volumes.		NUMBER IN GRAMMAR SCHOOL.		NUMBER IN HIGH SCHOOL.					Total.			
						Second Year before High.	Year before the High.	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.				
Boston — <i>Con.</i>																
Brighton High, .	n. s.	n. sat.	fair	175	9	—	—	136	71	43	20	—	—	—	270	pr.
East Boston High,	n. s.	n. sat.	poor	476	9	—	—	125	52	44	11	—	—	—	232	pr.
Chelsea, .	n. s.	n. sat.	good	600	9	278	232	149	108	87	60	—	—	—	404	pr.
Winthrop, .	suit.	sat.	good	50	9	42	51	31	22	8	3	—	—	—	64	pr.
WORCESTER COUNTY.																
Ashburnham, .	suit.	sat.	good	1,000	—	e25	20	25	19	14	4	—	—	—	62	ex.
Athol, .	suit.	sat.	lim.	5,000	9	46	47	44	44	27	18	—	—	—	133	pr.
Barre, .	n. s.	n. sat.	poor	107	9	22	32	13	11	4	8	—	—	—	36	ex.
Blackstone, .	suit.	sat.	fair	good	9	100	60	21	18	26	31	—	—	—	96	ex.
Bolton, .	suit.	sat.	none	—	8	20	e16	15	6	1	—	—	—	—	22	pr.
Brookfield, .	suit.	sat.	good	200	9	12	15	10	14	10	11	—	—	—	45	ex.
Clinton, .	small	sat.	good	300	9	120	80	68	66	38	25	—	—	—	197	pr.
Douglas, .	suit.	n. sat.	poor	—	9	20	20	13	7	1	12	—	—	—	33	ex.
Dudley, Nichols Academy, .	suit.	sat.	fair	300	8	13	17	20	9	8	3	—	—	—	40	ex.
Fitchburg, .	suit.	sat.	good	100	9	180	170	159	154	123	84	—	—	—	520	pr.
Gardner, .	n. s.	fair	fair	100	9	80	63	46	52	40	31	—	—	—	169	pr.
Grafton, .	n. s.	n. sat.	poor	100	8	55	50	39	15	28	9	—	—	—	91	pr.
Hardwick, .	suit.	fair	lim.	70	9	19	20	4	6	9	3	—	—	—	22	ex.
Holden, .	suit.	sat.	good	4,000	9	36	10	10	13	9	9	—	—	—	41	pr.
Hopedale, .	suit.	sat.	fair	500	8	20	16	14	9	7	3	—	—	—	33	pr.
Hubbardston, .	suit.	sat.	—	12	9	14	10	7	5	2	—	—	—	—	14	ex.
Lancaster, .	fair	fair	poor	100	8	25	19	13	15	8	4	—	—	—	40	pr.
Leicester, .	sat.	sat.	poor	300	9	35	27	15	24	14	8	—	—	—	65	pr.
Leominster, .	n. s.	sat.	poor	75	9	120	85	50	57	51	13	—	—	—	171	pr.
Lunenburg, .	suit.	sat.	lim.	few	8	24	19	13	4	5	1	—	—	—	23	pr.

TABLE A. — Showing Condition, Equipment, etc. — Continued.  
SUFFOLK COUNTY — Continued.

TOWNS.	NUMBER SENT TO				TEACHERS.				SCHOOL DAY.			Length of School Year In Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		Whole Number.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Reclamation Periods.	
	1896.	1897.	1896.	1897.								
Boston — Con.												
Brighton High, .	2	2	-	1	10	-	-	4	5	1	5	40
East Boston High,	1	2	2	2	8	4	-	4	5	1	5	40
Chelsea, .	7	8	15	9	16	3	-	10	43	1	5	40
Wintthrop, .	-	-	-	7	3	-	-	3	5	1	6	40

## WORCESTER COUNTY — Continued.

Ashburnham, .	-	-	-	3	8	1	-	6	6	2	6	-
Athol, .	1	-	3	2	7	-	-	3	5	1	6	40
Barre, .	1	3	2	-	5	-	-	2	54	2	8	40
Blackstone, .	1	-	5	-	4	-	-	3	54	1	6	40
Bolton, .	-	-	-	-	-	1	-	-	6	2	10	40
Brookfield, .	-	-	-	-	-	2	-	-	6	1	8	40
Clinton, .	-	2	-	4	1	-	-	2	44	2	6	40
Douglas, .	-	-	-	-	5	-	-	3	44	1	12	40
Dudley, Nichols Academy, .	-	-	-	-	-	-	-	1	53	2	10	40
Fitchburg, .	7	10	4	4	25	-	-	18	53	1	5	40
Gardner, .	6	4	4	-	6	1	-	3	43	2	6	40
Grafton, .	1	1	4	-	3	-	-	3	5	1	6	40
Hardwick, .	1	-	4	-	3	-	-	3	44	2	6	36
Holden, .	1	1	-	-	2	-	-	2	44	1	6	40
Hopedale, .	-	2	-	-	1	-	-	1	44	2	8	39
Hubbardsville, .	-	1	1	2	2	1	-	1	6	-	8	40
Lancaster, .	-	2	-	-	1	-	-	-	-	-	6	40
Leicester, .	-	-	1	-	3	-	-	2	5	2	7	32
Leominster, .	1	-	3	-	4	-	-	4	43	1	6	38
Lunenburg, .	2	2	3	4	8	-	-	5	5	2	7	40
	-	-	-	-	2	-	-	1	6	1	7	36

TABLE A.—*Showing Condition, Equipment, etc.—Continued.*  
SUFFOLK COUNTY—Continued.

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.																
	ENGLISH.				SOCIOLOGY.				MATHEMATICS.				LANGUAGES.				
	Literature.	Rhetoric.	Composition.	Grammar.	History.	Civil Government.	Political Economy.	Moral Philosophy.	Algebra.	Geometry.	Trigonometry.	Arithmetic.	Bookkeeping.	Latin.	Greek.	French.	German.
Boston — Con.	480	L	L	L	+324	38	-	-	+228	+228	*38	-	-	*560	-	*560	*560
Brighton High.	200	40	160	-	+320	40	-	-	200	120	-	-	60	*560	-	*560	-
East Boston High.	480	320	160	-	360	*40	-	-	320	320	*120	-	-	*640	*480	*480	-
Chelsea.	480	L	L	-	360	-	-	-	200	200	-	160	160	800	600	480	320
Winthrop.																	
WORCESTER COUNTY — Continued.																	
Asiuburnham.	+	+	+	+	+	70	+	+	+	+	+	+	+	+	+	+	+
Athol.	200	80	-	-	200	60	75	-	270	260	-	70	70	800	-	525	600
Barre.	120	80	120	-	220	120	120	-	216	216	-	-	-	800	600	240	-
Blackstone.	-	-	-	-	-	-	-	-	200	200	-	60	*75	*500	*500	200	-
Bolton.	160	160	40	-	+	160	-	-	200	200	-	40	48	480	-	-	-
Brookfield.	+	+	+	-	+	50	-	-	200	170	-	-	40	800	600	600	-
Clinton.	320	320	R	R	320	40	-	-	240	240	-	-	200	*640	*640	*320	520
Douglas.	320	80	160	*208	*160	40	-	-	160	160	-	240	80	780	520	520	-
Dudley, Nichols Acad.,	500	200	40	-	320	80	80	200	200	200	200	200	120	800	600	800	800
Fitchburg.	500	L	160	-	320	80	-	-	*160	*160	*80	*80	*80	800	*560	*320	*560
Gardner.	800	L	L	L	*400	*80	-	-	*400	*400	*800	*160	*200	*800	*600	*600	-
Grafton.	180	72	120	108	144	48	-	-	216	216	-	36	48	576	432	324	-
Hardwick.	50	50	80	80	300	60	-	-	200	200	-	-	-	800	600	200	-
Holden.	156	156	312	156	120	156	-	-	186	234	-	-	-	624	156	312	-
Hopedale.	240	80	320	-	240	80	80	-	280	200	-	-	200	640	360	320	-
Hubbardston.	-	980	-	-	250	40	-	-	200	140	-	40	-	280	-	130	-
Leicester.	280	200	80	-	440	50	-	-	160	130	-	60	-	1,000	480	360	-
Leicester.	465	+	+	+	*475	*95	-	-	280	*410	-	58	95	*950	*570	*620	-
Leominster.	400	L	L	L	120	H	-	-	160	220	-	120	320	640	520	520	360
Lanesburg.	288	108	-	180	300	24	-	-	144	144	-	60	144	720	360	150	-





TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
SUFFOLK COUNTY — *Concluded.*

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can bear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.	
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.		Miscellaneous.
Boston — Con.											
Brighton High.	4,238	10,000	4	11	8	12	40	18	11	—	John C. Ryder.
East Boston High.	3,860	8,000	4 <sub>3</sub>	11	9	10	44	14	12	—	John F. Eliot.
Chelsea.	5,100	16,000	4 <sub>4</sub>	19	8	15	31	24	3	—	Alton E. Briggs.
Winthrop.	5,000	3,600	2, 4 <sub>3</sub>	10	7	15	44	18	6	—	Ervine D. Osborne.
WORCESTER COUNTY — Continued.											
Ashburnham.	—	—	4	—	—	—	—	—	—	—	Hervey S. Cowell.
Athol.	4,145	6,000	3, 4 <sub>2</sub>	7	8	16	47	12	10	—	F. C. Avery.
Barre.	3,640	3,200	4 <sub>3</sub>	9	11	12	45	19	4	—	—
Blackstone.	—	—	4 <sub>3</sub>	—	—	—	—	—	—	—	—
Bolton.	1,708	2,000	3	21	9	29	28	13	—	—	Adelia J. Webber.
Brookfield.	—	—	4 <sub>3</sub>	—	—	—	—	—	—	—	Edward B. Hale.
Clinton.	5,680	7,200	3, 4 <sub>2</sub>	11	6	12	41	9	8	13	A. E. Ford.
Douglas.	3,768	2,400	4 <sub>2</sub>	20	5	17	43	15	—	—	Geo. H. Stoddard.
Dudley, Nichols Academy.	6,280	6,400	4 <sub>3</sub>	7	9	15	48	14	1	6	Alfred G. Collins.
Fitchburg.	7,020	25,000	4 <sub>5</sub>	9	6	8	32	13	6	26	Geo. P. Hitchcock.
Gardner.	6,105	7,200	4	13	8	19	36	14	4	6	—
Grafton.	3,368	3,240	3, 4 <sub>3</sub>	14	6	15	40	17	8	—	George Rugg.
Hardwick.	3,095	2,400	4 <sub>3</sub>	6	12	13	51	18	—	—	—
Holden.	2,879	3,120	4	27	10	14	38	6	5	—	Alonzo K. Learned.
Hopedale.	4,260	3,200	4	15	9	16	31	16	13	—	H. H. Ryder.
Hubbardston.	2,320	1,280	3	43	13	16	17	4	7	—	F. Mande Howe.
Lancaster.	3,930	4,200	3, 4 <sub>2</sub>	14	13	9	47	9	8	—	William E. Sargent.
Leicester.	5,210	4,560	5	9	11	16	41	15	6	2	Corwin F. Palmer.
Leominster.	4,860	9,600	3, 4 <sub>3</sub>	8	2	15	42	11	8	14	Wallace E. Mason.
Lunenburg.	2,908	2,520	4	13	11	17	43	16	—	—	Edwin B. Stevens.

TABLE A. — Showing Condition, Equipment, etc. — Continued.  
WORCESTER COUNTY — Continued.

TOWNS.	ACCOMMODATIONS.				Grades below High.	PUPILS.						How admitted.		
	Buildings.	Sanitary Condi- tions.	Laboratory Fa- cilities.	Reference Li- brary, Volumes.		NUMBER IN GRAMMAR SCHOOL.		NUMBER IN HIGH SCHOOL.						
						Second Year before the High.	Year before the High.	First Year.	Second Year.	Third Year.	Fourth Year.		Fifth Year.	Total.
Mendon,	n. s.	n. sat.	none	25	15	3	15	11	-	8	-	34	pr.	
Milford, .	n. s.	n. sat.	poor	150	95	68	58	37	25	26	-	146	pr.	
Millbury, .	suited.	sat.	poor	100	55	54	35	28	17	13	-	93	pr.	
Northborough, .	suited.	sat.	fair	40	25	22	20	14	11	-	-	45	ex.	
Northbridge, .	fair	sat.	good	100	42	41	25	23	21	9	-	78	ex.	
North Brookfield, .	suited.	sat.	poor	200	18	33	33	17	11	8	-	69	ex.	
Oxford, .	suited.	sat.	fair	200	e20	17	10	12	6	8	-	36	ex.	
Princeton, .	n. s.	n. sat.	poor	75	7	6	4	5	4	-	-	13	ex.	
Rutland, .	fair	bad	poor	small	30	14	13	12	-	-	-	25	ex.	
Shrewsbury, .	suited.	sat.	poor	250	17	19	11	11	9	-	-	31	ex.	
Southborough, .	suited.	n. sat.	poor	275	21	26	16	9	8	9	-	42	ex.	
Southbridge, .	fair	sat.	fair	60	43	16	23	31	17	23	-	94	ex.	
Spencer, .	suited.	sat.	fair	125	100	64	31	25	35	11	-	102	pr.	
Stirling, .	fair	sat.	poor	75	20	3	5	9	-	-	-	14	ex.	
Sutton, .	suited.	sat.	none	20	e47	e40	4	17	7	2	-	30	ex.	
Templeton, .	fair	fair	none	30	12	10	10	3	9	8	-	30	pr.	
Templeton, Baldwinville, .	suited.	sat.	none	50	19	21	21	7	5	4	-	37	pr.	
Upton, .	suited.	sat.	fair	good	e28	e25	28	16	16	7	-	67	ex.	
Uxbridge, .	suited.	sat.	good	200	30	22	34	29	12	5	-	80	ex.	
Warren, .	n. s.	sat.	good	50	40	30	23	21	10	12	-	66	ex.	
Webster, .	n. s.	fair	poor	300	23	27	28	26	7	17	-	78	pr.	
Westborough, .	fair	n. sat.	lim.	100	64	42	27	21	14	14	-	76	pr.	
West Boylston, .	n. s.	n. sat.	poor	625	12	19	23	12	11	7	-	53	ex.	
West Brookfield, .	-	-	poor	20	6	10	4	10	3	-	-	17	pr.	
Westminster, .	suited.	sat.	poor	small	16	10	12	13	-	-	-	25	pr.	
Winchendon, .	suited.	sat.	good	400	39	35	36	20	14	14	-	84	pr.	
Worcester, Classical, .	suited.	sat.	fair	2,188	1,084	870	244	169	135	105	-	673	pr.	
Worcester, English, .	suited.	fair	good	3,000	1,084	870	366	259	170	160	-	955	pr.	

TABLE A.—*Showing Condition, Equipment, etc.—Continued.*  
WORCESTER COUNTY—Continued.

TOWNS	NUMBER SENT TO				TEACHERS.				SCHOOL DAY.			Length of School Year in Weeks.
	NORMAL SCHOOL.		SCIENTIFIC SCHOOL.		Whole Number.	Normal School	Scientific School	College Graduates.	College Graduates.	No. of Hours.	No. of Sessions.	No. of Recitation Periods.
	1896.	1897.	1896.	1897.								
Mendon.	1	1	—	—	1	—	—	—	1	54	2	12
Millford.	—	6	—	—	—	—	—	—	4	5	1	6
Millbury.	1	1	—	—	3	—	—	—	3	5	1	6
Northborough.	—	2	2	1	1	—	—	—	1	5	2	6
Northbridge.	—	2	—	—	4	—	—	—	3	5	1	6
North Brookfield.	1	1	—	—	3	—	—	—	2	58	2	7
Oxford.	—	—	—	—	2	—	—	—	2	6	2	7
Princeton.	—	—	—	—	1+	—	—	—	2	6	2	6
Rutland.	—	—	—	—	2	—	—	—	1	5	2	8
Shrewsbury.	—	—	—	—	2	—	—	—	2	5	2	12
Southborough.	1	—	—	2	3	—	—	—	2	54	1	7
Southbridge.	3	4	—	—	4	—	—	—	3	41	1	7
Spencer.	1	—	—	—	1+	—	—	—	1	6	2	10
Sterling.	—	—	—	—	1	—	—	—	2	6	2	11
Sutton.	—	—	—	—	1	—	—	—	2	43	1	7
Templeton.	—	—	—	—	2	—	—	—	2	5	2	10
Templeton, Baldwinville.	2	—	—	1	1	—	—	—	2	6	1	10
Upton.	—	—	—	—	1	—	—	—	2	51	1	8
Uxbridge.	1	—	—	—	3	—	—	—	2	5	1	7
Warren.	—	—	—	1	3	—	—	—	3	53	1	7
Webster.	—	—	—	1	4	—	—	—	3	41	1	6
Westborough.	—	1	2	1	3	—	—	—	3	5	2	6
West Boylston.	—	4	1	1	4	—	—	—	3	53	1	7
West Brookfield.	4	—	—	2	3	—	—	—	3	41	1	6
Westminster.	—	—	—	—	3	—	—	—	3	5	2	7
Winchendon.	—	4	—	—	1	—	—	—	1	6	2	12
Worcester, Classical.	12	17	7	—	30	—	—	—	4	5	1	6
Worcester, English.	20	24	15	20	39	7	3	—	19	41	1	5
									21	43	1	5



TABLE A. — *Showing Condition, Equipment, etc. — Continued.*  
 WORCESTER COUNTY — *Continued.*

TOWNS.	TIME GIVEN TO EACH STUDY, MEASURED IN RECITATION PERIODS.										ART AND MUSIC.				MISCELLANEOUS.			
	SCIENCES.										ART AND MUSIC.				MISCELLANEOUS.			
	Physies.	Chemistry.	Botany.	Geology.	Astronomy.	Zoology.	Physiology.	Physical Geography.	Political Geography.	Drawing.	Color.	Music.	Manual Training.	Stenogra-phy.	Typewrit-Ing.	Penman-ship.	Physical Culture.	
Mendon,	160	160	120	72	—	80	80	72	—	144	—	daily	—	200	200	—	160	
Millford,	200	200	100	200	70	—	100	80	—	160	—	160	—	—	—	—	—	
Millbury,	190	228	90	—	114	—	76	152	—	228	—	228	—	160	160	—	—	
Northborough,	240	240	76	40	—	—	40	108	40	320	—	160	—	—	—	—	—	
Northbridge,	80	80	36	72	72	—	160	100	—	240	—	160	—	—	—	—	—	
North Brookfield,	160	120	100	80	80	—	—	—	—	—	—	—	—	—	—	—	—	
Oxford,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Princeton,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Rutland,	190	228	90	—	76	—	76	152	—	228	—	228	—	304	—	—	—	
Shrewsbury,	288	288	152	—	76	—	76	152	—	304	—	160	—	—	—	—	—	
Southborough,	200	120	65	100	80	—	60	84	—	80	—	160	—	—	—	—	—	
Southbridge,	200	160	50	—	60	—	50	—	—	160	—	160	—	—	—	—	—	
Spencer,	114	—	60	65	60	—	120	120	—	—	—	60	—	—	—	—	—	
Sterling,	144	144	96	96	—	—	36	36	—	—	—	—	—	—	—	—	—	
Sutton,	108	54	54	72	72	—	—	72	—	—	—	—	—	—	—	—	72	
Templeton,	180	—	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Templeton, Bald's'n's'le,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Upton,	160	130	48	48	48	—	—	—	—	152	—	152	—	—	—	—	—	
Uxbridge,	190	190	60	120	60	—	60	190	—	150	—	150	—	—	—	—	—	
Warren,	120	120	160	120	60	—	75	120	120	160	—	160	—	360	St.	—	—	
Webster,	200	135	—	125	60	—	100	75	—	320	D	200	—	—	—	—	—	
Westborough,	90	75	60	60	60	—	24	—	—	80	—	200	—	—	—	—	—	
West Boylston,	180	96	48	—	24	—	—	—	—	108	—	—	—	—	—	—	—	
West Brookfield,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Westminster,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Winchendon,	200	200	100	—	100	—	50	—	—	40	—	160	—	320	*80	—	—	
Worcester, Classical,	200	200	200	200	100	200	160	—	—	—	—	—	—	*120	—	—	—	
Worcester, English,	200	200	200	200	100	200	160	—	—	40	160	—	—	*240	—	—	—	

TABLE A. — Showing Condition, Equipment, etc. — Concluded.  
WORCESTER COUNTY — Concluded.

TOWNS.	No. of Recitation Periods per Year required by the Courses of Studies.	No. of Recitations per Year the Teaching Force can hear.	Length in Years of Courses of Studies.	PER CENT. OF RECITATION PERIOD REQUIRED FOR						Principal, September, 1897.	
				English.	Sociology.	Mathematics.	Languages.	Sciences.	Art and Music.		Miscellaneous.
Mendon,	2,870	2,160	4 <sup>2</sup>	13	10	17	41	5	10	4	Francis A. Rugg.
Milford,	4,620	6,000	3, 4 <sup>2</sup>	8	6	14	41	15	6	10	A. E. Tuttle.
Millbury,	4,120	3,600	4 <sup>3</sup>	17	4	11	49	19	—	—	John F. Roach.
Northborough,	3,994	2,280	3 <sup>2</sup>	19	13	21	12	23	12	6	S. A. Melcher.
Northbridge,	5,294	4,800	3, 4 <sup>2</sup>	17	5	12	36	15	9	—	Edgar H. Grout.
North Brookfield,	3,730	4,200	3, 4 <sup>2</sup>	16	5	16	45	7	11	—	C. L. Judkins.
Oxford,	4,200	2,800	4 <sup>2</sup>	19	11	14	37	19	—	—	Anna C. Mason.
Princeton,	—	—	3 <sup>2</sup>	—	—	—	—	—	—	—	John Battles.
Rutland,	—	—	3 <sup>2</sup>	—	—	—	—	—	—	—	Chester S. Porter.
Shrewsbury,	3,662	2,280	3 <sup>2</sup>	19	14	21	12	22	12	6	Albert Tyler.
Southborough,	4,852	2,660	4 <sup>2</sup>	24	9	15	19	21	6	—	Fred E. Corbin.
Southbridge,	4,733	4,560	4 <sup>2</sup>	13	11	12	47	15	5	—	Edwin S. Tirrell.
Spencer,	4,200	4,800	3 <sup>2</sup>	10	17	11	40	11	8	—	Ella C. Abbot.
Sterling,	2,745	3,800	3 <sup>2</sup>	23	18	15	29	11	4	—	Sarah E. Wedge.
Sutton,	2,901	1,980	4 <sup>2</sup>	10	7	37	21	25	—	—	Grace E. Blodgett.
Templeton,	2,538	2,520	4 <sup>2</sup>	9	8	20	46	17	—	—	N. A. Cutler.
Templeton, Baldwinville,	2,316	1,800	4 <sup>2</sup>	12	14	21	39	14	—	—	Anna Metcalf.
Upton,	—	—	3, 4 <sup>3</sup>	—	—	—	—	—	—	—	Charles H. Bates.
Uxbridge,	4,050	3,990	3, 4 <sup>2</sup>	14	6	13	42	17	8	—	Archibald J. Matthews.
Warren,	4,295	3,990	3, 4 <sup>2</sup>	18	10	9	40	16	7	—	A. H. Morse.
Webster,	4,040	4,800	4 <sup>3</sup>	12	9	14	32	16	8	9	H. C. Waldron.
Westborough,	4,095	4,800	4 <sup>3</sup>	10	9	16	39	14	12	—	W. D. Gilpatric.
West Boylston,	3,520	4,095	3, 4 <sup>2</sup>	12	8	11	48	13	8	—	Cora A. Durgin.
West Brookfield,	3,344	2,160	3 <sup>2</sup>	39	4	15	27	12	3	—	Mrs. Jessie L. Shepard.
Westminster,	—	—	3 <sup>2</sup>	—	—	—	—	—	—	—	Frederic W. Plimmet.
Winchendon,	—	—	4 <sup>3</sup>	—	—	—	—	—	—	—	Edward R. Goodwin.
Worcester, Classical,	6,370	30,000	4, 5	9	5	12	58	10	4	2	Homer P. Lewis.
Worcester, English,	6,670	39,000	4, 6	12	11	15	33	18	2	9	

TABLE B. — *Summary of Statistics for Pupils and Teachers.*

COUNTY.	IN GRAMMAR SCHOOLS.		PUPILS IN HIGH SCHOOLS.					NO. OF PUPILS SENT TO				TEACHERS.				
	Second Year before the High School.	First Year before the High School.	First Year (Low-est Class).	Second Year.	Third Year.	Fourth Year.	Fifth and Sixth Years and Specials.	Total Number.	NORMAL SCHOOLS.	SCIENTIFIC SCHOOLS.		COLLEGES.	Normal School Graduates.	Scientific School Graduates.	College Graduates.	No. of Schools Reporting.
									1896.	1897.	1896.	1897.	1896.	1897.	1896.	1897.
Barnstable,	290	274	160	156	83	56	2	457	9	18	1	2	6	1	20	11
Berkshire, ..	568	455	364	278	203	195	19	1,059	13	29	3	3	19	31	39	12
Bristol, ..	1,384	1,042	760	492	366	264	31	1,913	19	21	8	7	33	28	68	10
Dukes, ..	27	24	23	22	16	7	-	68	-	1	-	1	-	-	5	3
Essex,	3,287	2,794	1,800	1,247	846	579	-	4,472	24	42	28	41	71	81	171	28
Franklin, ..	224	210	213	185	104	75	31	608	-	6	5	4	10	13	26	9
Hampden, ..	706	528	429	339	218	180	15	1,181	12	17	2	8	50	54	54	7
Hampshire, ..	357	275	203	156	138	84	7	588	5	9	-	5	24	18	29	10
Middlesex, ..	5,292	4,328	3,119	2,217	1,473	1,080	160	8,049	58	118	58	89	232	229	315	48
Norfolk, ..	1,802	1,462	1,205	749	478	362	17	2,811	29	25	18	17	46	50	109	28
Plymouth, ..	1,022	851	618	475	313	230	13	1,649	17	24	6	8	27	29	65	17
Suffolk, ..	4,594	3,578	2,430	1,430	1,093	524	118	5,595	115	124	59	39	102	141	189	13
Worcester, ..	2,914	2,343	1,758	1,415	1,002	747	24	4,946	73	92	44	50	95	114	222	48
Totals, ..	22,467	18,164	13,060	9,140	6,311	4,365	437	43,396	374	525	232	274	715	789	1,312	244

<sup>1</sup> For Holyoke, Belchertown, Nantucket, East Bridgewater and three or four other towns, from which no returns were received, the estimated total number is 604, making a grand total of 34,000.





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TEXTILE EDUCATION IN MASSACHUSETTS  
AND EUROPE.

BY CHRISTOPHER P. BROOKS,

*Director of the Lowell Textile School, Lowell, Mass.; Member of the Permanent  
Bureau of the International Congress of Technical Education  
as Representative of the United States.*

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## TEXTILE EDUCATION IN MASSACHUSETTS AND IN EUROPE.

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*The Necessity for Textile Schools.*—It is fully realized by the communities of manufacturers of the leading European nations that the trade school is a very valuable adjunct, if not a supreme necessity, to their business. This is especially true in the case of textile manufacturers, and there are now textile educational institutions in England, France, Germany, Belgium, Italy, Switzerland and Russia, as well as in India and Japan. In this report, the expression “textile school” is used to denote an educational institution, where instruction is given either in the day or evening, in the spinning, weaving, dyeing, bleaching or printing of textiles or textile fibres. Many large schools in Europe are almost wholly devoted to textile interests.

*The Textile Schools of Europe.*—The number of textile schools in Europe in the first rank, that is, schools giving courses of day instruction, both theoretical and practical, and in such a manner as to qualify a man to become a manufacturer, probably does not exceed twenty. Those schools in which instruction is given in the evening classes for the benefit of artisans, or in which Sunday courses or intermittent lecture courses are given, probably number at least one hundred.

Textile schools are found in the highest grade in Germany, especially in Prussia. The Prussian textile schools are all under the direct control of the government and are all managed on similar lines to one another. The school of Mulheim on the Rhine is the oldest of existing schools, and its work was commenced in 1849. This school is doing good work now, although later schools surpass it in equipment. So excellent a reputation did this school enjoy up to twenty years ago, that a deputation of Yorkshire (English) manufacturers, who visited the continent in 1876 to report on the state of textile education in Europe, styled it as one of the most complete on the continent.

There have been organized during the last twenty years several schools which have now taken precedence of that at Mulheim. England has perhaps most examples of very modern schools, as the movement in that country has only been popularized since about 1885. There are now in England one hundred institutions of greater or less importance where textiles are systematically taught.

Textile schools are of various origins. On the continent of Europe many have originated through the guilds and weavers' societies, of which we have no parallels in this country. They were associations of weavers for mutual benefit, some established for the education of the younger members of the guilds, and others for mutual protection and advancement.

*Origin of Textile Schools.*—A large weaving school in Berlin originated in the first instance with the United Guild of Weavers of Berlin, and a notable example of a guild governing and managing a textile school is to be found in the textile department of the Yorkshire College, in Leeds, England, which has been equipped and supported throughout its history by the Cloth Workers' Company of London.

Sometimes a school has originated from an association of workmen bent on their own higher education, as is to be found in Oldham, England, in what is known as the Oldham Mutual Technical School, which has developed in this manner.

The desire of the manufacturers of a town or city to improve the status of their assistants, to educate overseers and managers, has been another cause of the establishment of textile schools. An example of this is found in Mulhausen, in Alsace.

The schools of Crefeld and Roubaix originated in this manner. Occasionally it has been found that the owner or owners of very large works have built a school especially for the benefit of their employees. There are several examples of this, a notable school being that of Messrs. Howard & Bullough of Accrington, England.

*Support of Textile Schools.*—By far the greater number of modern textile schools have been established jointly by the local authorities and the government, in deference to local manufacturing interests.

The most recently erected English textile schools have been established in this manner. In the latter cases, the schools are

governed by a local authority, such as the city, town or village council, and are administered by funds derived from the government, which are sometimes augmented by local taxes.

When the textile school in Chemnitz was established, in 1857, it was a joint undertaking by the Saxon government and the Chemnitz council. On the other hand, when the Reutlingen school was commenced in 1855, it was done entirely on the motion of the Minister of Trade and Commerce of Wurttemberg.

There has been a tendency by many of the continental governments and German States during recent years to take the control of the technical schools, and some of the most recent ones have been built and equipped at the expense of the States. In many cases local funds have been diverted to technical school purposes; for instance, the proceeds of the hall marking of gold and silver are applied to watch-making schools, the proceeds from the administration of a conditioning house are applied to textile schools, and the proceeds from expositions are applied also to textile schools.

In Switzerland practically the only textile school is the very excellent one at Zurich, for instruction in silk weaving. In this case the school is governed by the local manufacturers at whose suggestion it was started. The town of Zurich finds the building, provides lights and power and remits taxes; there is also a government appropriation made for the schools. In other places the trade schools are also equipped and managed by the local manufacturers, with the assistance of small appropriations made by the communes.

*Varieties of Control and Management.*—In schools established in such a variety of ways there are naturally many different systems of control and management, of instruction, of equipment, and of awards of diplomas, found in the same country; but there is being evolved a system in almost all countries to invest control in a central authority, usually the government, and to arrange for all management of schools to be by local authorities, subject to the approval of the government and other inspectors. Even since my first visit to European schools, in 1891, and on the occasion of subsequent visits, I have seen considerable change tending in this direction, especially in Germany.

All Prussian spinning, weaving, dyeing and finishing schools are placed under the direct charge of the Minister of Commerce in Berlin, and are not placed under the Minister of Education, — showing the recognition of the German government that these schools are a necessity to the commercial well-being of the country, and not merely an educational requirement. The officials of the Prussian schools are government officials. The school is placed under the charge of a director, in all government schools, who is in co-operation with a committee of local manufacturers, bankers and local educational officers. The director of the school shares in the privileges of all government service, and after a certain number of years of service is pensioned at two thirds his salary.

The textile schools of Belgium are under somewhat similar supervision; and in that country they are placed under the Ministry of Agriculture and Public Works. The schools are managed by local committees of administration and are inspected from Brussels.

In England, as has been previously stated, the schools are almost entirely controlled by local authorities, who administer the funds appropriated for technical instruction by the British government. This fund is entrusted to the county councils (which means in many cases the city councils), but where the operations of the city councils include the local government of small towns and villages, the fund is entrusted to each local authority.

Technical schools are almost entirely run in connection with the department of science and art in this manner; the schools are also inspected by the South Kensington science and art inspectors, and receive grants from the science and art departments, in addition to the appropriation by the county council for technical instruction.

*The City and Guilds of London Institute.* — In order to thoroughly understand the position of technical instruction in England, we must realize the existence of an association known as the City and Guilds of London Institute. To this association, and especially to its secretary, Sir (formerly Mr.) Philip Magnus, must be given a very large share of the credit for the introduction of a system of technical instruction in England. About 1879 the Society of Arts, which had done something for two years previously towards establishing a voluntary tech-

nological examination without making any payment on results, turned over the conduct of these examinations to the above-named institute, which was established by the wealthy London guilds, or city livery companies, for the purpose of providing and encouraging education adapted to the requirements of all classes of persons engaged, or preparing to engage, in manufacturing and other industries.

This association voluntarily made contributions in sums of various amounts towards the building of suitable local schools and grants in aid of the establishment of technical schools; but their principal work was in organizing a system of examinations conducted in local centres but in accordance with fixed standards and by recognized authorities, in making payments on the results of these examinations to the teachers of the classes, and in preparing syllabuses for the guidance of teachers and of organizers of technical institutions. This system was not only applied in Great Britain, but examinations were, and are, concurrently held in India, Australia and other British colonies.

For over ten years, from 1879 to 1890, this institution built up the technical instruction system of England, and deserves all the credit that it is possible to give for the excellent work done voluntarily by the London guilds.

*A Royal Commission appointed.* — During the interval above named, owing to a very strong pressure brought to bear on the government by advanced educators, who had become aware of the immense strides made on the continent of Europe and especially in Germany in the advancement of technical education, and by wide-awake merchants, who could foresee the disastrous results that were likely to accrue to British trade if something were not done to foster technical instruction in England, a royal commission was appointed in the year 1881, and published various reports during the succeeding years. The effect of these reports was to open the eyes of the British manufacturers to some extent to the great progress that was being made by their continental competitors in the better trade education of the workman, the overseer, the superintendent and the employer himself; and the Queen's Jubilee in 1887 was celebrated in England in many cases by the addition of technical schools to the existing science and art schools. Some two years later the technical instruction act was passed, which was the first instance of the government officially recognizing technical

education. A year later a windfall occurred which placed technical education in England on a permanent basis.

In the session of 1890 Parliament levied additional duty on the manufacture of beer, to the extent of six pence per barrel, which was estimated to yield an income of three million seven hundred and fifty thousand dollars per annum; and they found the money was not applicable for the purpose for which it was originally intended, and a fresh use had to be found for it. Friends of technical education were wide awake to the opportunity; they took the matter up, and in a very few days the whole sum was appropriated for the advancement of technical education.

*Present Position of the City and Guilds of London Institute.*

— Since the appropriation made for technical education by the government, the grants from the City and Guilds of London Institute have been discontinued; but this institute is still recognized as the controlling power over technical education in Great Britain. Its position is entirely unofficial, but it is tacitly recognized by all of the technical institutions of the country as the leading examining body. Its appointment of an examiner is accepted by all the institutions, and students from all the schools accept the decision of the institute in the matter of certificates or diplomas as final and decisive.

*The Class of Students in Textile Schools.* — In European schools the students instructed in the day courses are usually sons of manufacturers, who are sent to the textile schools by their parents, as they get better instruction in the schools than in a mill. In the mill all people engaged therein have duties to perform, which keep them busy without making the mill into an educational institution; and there is often considerable objection on the part of the overseers and manufacturers to give instruction except when compelled. Another advantage in sending a young man to a textile school is, that in the large ones there is usually a very much more varied collection of machinery than is to be found in any one mill. In the European evening schools the attendance is mostly from artisans, who are engaged in the mill or machine shops during the day; and arrangements are made by which they can obtain a thorough technical education at a low cost. In continental Europe there is one class of schools which is not found



in England or America, and that is the Sunday textile school. On Sunday morning it is customary to have courses of lectures, and even practical work, for the benefit of artisans who are otherwise engaged on a week day. Some of these schools are attended by very large crowds of students, and are very popular.

*Fees at Textile Schools.* — The fees for European schools are given under the description of the schools on succeeding pages. They vary in the day courses from the highest, namely, three hundred dollars per annum at the Crefeld Dyeing and Finishing School and three hundred and sixty dollars per annum for the spinning and weaving course at the Mulhausen school, down to nothing; as, for example, at the Roubaix school, where the tuition is free.

To afford comparison, the following table is given of some of the leading technical schools of the world, where the gross cost of the students to the institution is given, and also the net cost, the difference approximately being the average amount received from fees: —

	Number of Students.	Fees.	Gross Cost per Student.	Net Cost per Student.
England: —				
Central Technical College, . . .	210	\$115	\$270	\$155
Coopers Hill, . . . . .	100	600	600	—
Royal College of Science, . . .	300	50	335	285
America: —				
Massachusetts Institute, . . .	1,200	200	300	100
Cornell University, . . . . .	1,503	100	315	215
Johns Hopkins University, . . .	600	180	305	125
McGill University (applied science only), . . . . .	175	160	300	145
Germany: —				
(Report of Royal Commission, 1884),	2,000	—	—	500
Switzerland: —				
Polytechnic, Zurich, . . . . .	720	45	295	250

In evening schools it is the custom to make the fees as low as possible, being but a small percentage of the cost of instruction in such schools, as at Roubaix, Verviers and other centres, where there are no fees for the evening classes; but this is not a good practice, as the instruction to adults is not appreciated by them when free, as it is when a sum, however small, is paid.

It is generally accepted by most of the European governments that the lower the fees can be made, and therefore the less self-supporting the school, the greater advantage the institution is to the community and the better it is for the industrial interests of the district.

It is customary in Belgian and German schools, and the practice is now being adopted in England, to charge a higher fee for a foreigner than for a native. This is done for two reasons: one is that the foreigner should not obtain the benefit of instruction at much less than cost, which is really intended only for the native; and the other is to place an obstruction in the way of the foreigner's becoming acquainted with the local industries. A notable example to the contrary which deserves widespread recognition, is that of the Polytechnic in Zurich, where the fees paid amount to only 15 per cent. of the cost of the instruction, and yet this benefit is offered to students from all parts of the world; the consequence is that three sevenths of the students of the Federal Polytechnic School in Zurich are foreigners, the little State of Switzerland being burdened with five sixths of the cost of their education.

Many of the European textile schools remit the fees to needy students, and in some centres, such as Chemnitz, the school committee assists in paying some of the students' board.

*Scholarships in Textile Schools.*—There is a widespread practice in England by which scholarships are offered for the benefit of poor but deserving students, which serve two objects: first, to help the needy students; and, second, to enable wealthy societies and State and county authorities to contribute to the support of institutions to which they have not the power to make direct appropriations, or where, for any reason, it is undesirable to grant direct aid.

In some districts it is customary for manufacturers to send workmen to the schools, paying their fees and a small wage while at school,—the idea being to qualify them to take

positions as overseers and managers. This is especially the case in Switzerland, Austria, Germany and Italy. In Italy I have seen girls in one of the schools who had been sent by their employers from the neighboring mills to learn the weaving of new or intricate patterns.

*Value of the Education given.* — The education given by textile schools is so valued by many of the continental manufacturers that, after sending their sons through a full course in a school in their own country, they are frequently sent to another country to take another course. This is especially true in England, where a large number of French, German and Austrian students are received, and it is found that many of them have previously been through a full course of instruction in their own country.

*Additional Facts of General Interest.* — Only male students usually are found in the European textile schools, but female students are encouraged to attend, and in a few of the schools there are excellent ladies' classes in design. There are also female classes for burling and mending in some of the Belgian and German schools.

The textile school has certainly come to stay in Europe. There is no manufacturing district and there are few manufacturing cities of importance that are now without a textile school, either in the city or at some convenient town from which the school can be utilized by the young men of the district.

The staffs of the schools are held in high esteem, and their advice is sought by manufacturers in cases of difficulty; while the government draws on the officials of the schools for expert work, especially in judging exhibits at large expositions. This year the head of the textile department at the Manchester school is one of the judges of fabrics at the Brussels exhibition. At the World's Fair, at Chicago, several foreign governments delegated the directors of textile schools to take charge and report on exhibits. The same thing was done at the Paris Exhibition in 1889.

*The Textile Museum.* — A feature which is being now introduced in many of the best textile schools is a textile museum. There is no doubt that the museum at Crefeld is influencing other schools to follow its example.

The museum at Crefeld, in Germany, is one of the best in Europe; in fact, I have seen only one other which is approximately equal to it, and that is the Museo Archeologico, at Florence in Italy.

In the Crefeld school are eight thousand pieces of fabrics, all of them of considerable, and some of very great, value. The collection is of extreme historic value, including fabrics thousands of years old, — from the tombs of the Egyptians down to the fashionable designs of the present year. The collections of the fifteenth, sixteenth and seventeenth centuries are especially complete, and there is also an oriental section with many fine examples. The curator of this museum has a fund at his disposal, and is allowed to purchase fabrics wherever he goes. Some of the specimens have cost as much as fifty dollars per square foot.

The Cloth Workers' Company of London has just placed at the disposal of the Yorkshire College Textile School the sum of five thousand dollars with which to commence a textile museum. The Bradford, England, Technical School is also making arrangements for a textile museum, and others of the larger foreign schools are also engaged on the same work.

*Textile Education in Massachusetts.* — After the foregoing summary of the work that is being done in the direction of textile education in Europe, it is interesting to note what is being done in Massachusetts. At present there is only one textile school in operation in New England, and this is the one established a little more than a year ago at Lowell, Mass.

*The Lowell Textile School.* — The textile school of Lowell is controlled by a corporation known as the "Trustees of the Lowell Textile School," and is incorporated by a special act of the Massachusetts Legislature, "for the purpose of establishing and maintaining a textile school for instruction in the theory and practical art of textile and kindred branches of industry."

The trustees, with two exceptions, represent, either as president, director, treasurer, agent or superintendent, the management of the great textile corporations of Lowell, Lawrence and vicinity in the Merrimack valley.

By the terms of the by-laws at least three fourths of the trustees must be "persons actually engaged in or connected

with textile or kindred manufactures." This insures the practical character of the management and instruction.

The contributions towards the equipment of the school have been partially made by the State of Massachusetts, partially by the city of Lowell and partially by the manufacturers of textile fabrics and textile machinery.

The funds at the disposal of the trustees have been carefully administered. In order to avoid too great a drain upon them, a special building has not been erected, but space has been rented in a block possessing almost all the requisites for a school of this kind. It is in a very central position, conveniently situated for access from all parts of the city, near to the terminus of the electric car lines from Lawrence and Nashua, and contiguous to one of the railway stations. The building is of mill construction throughout, and substantially built for the reception of heavy machinery. Possession was taken in November, 1896.

The space taken in the first instance was soon found to be insufficient for the large amount of machinery necessary to thoroughly equip a school of this character, and additional space was taken, doubling the capacity of the school, with the option of using still further accommodation as required. The floor space at present utilized is about thirty thousand square feet.

*Machinery and Plant of the Lowell Textile School.* — The machinery and plant of the school may be divided into several sections, foremost being the cotton picking, carding, combing, spinning, twisting and warp preparation department.

The equipment of this department, as regards machinery, consists of an automatic feeder, single section picker, finisher lapper, one top flat card, one revolving flat card, railway head and drawing frames, one slubber, one comb and sliver lap machine, one intermediate and one fine frame, also a spinning frame, a spinning mule, a reel, a wet and dry twister, a spooler, a warper and a slasher.

There are, in addition to the above, machines for yarn testing and other purposes, and a good line of full-sized models of machinery. This machinery, like all the other in the school, is entirely new, with all the latest improvements, and the firms represented by it are the Lowell Machine Shop, the Whitin

Machine Works, the Mason Machine Works, the Kitson Machine Company, and T. C. Entwistle.

The second department, that of wool picking, carding and warp preparation, is equally well equipped, and consists of a complete collection of woollen spinning machinery and auxiliary machinery from the establishment of the Davis & Furber Machine Company, Geo. S. Harwood, the Torrance Manufacturing Company, B. S. Roy and others.

In this room are to be found the mixing picker, the first breaker card, the second breaker card, the finisher card, with which are the Bramwell feeds, Torrance balling head and Apperly feeds, one spinning mule, one warp spooler, one warp dresser; one beamer, one twister and a grinder.

The worsted machinery, which has not yet been put in position, will be erected in the same room, and will consist of all the machinery necessary to produce worsted yarn from the raw wool.

A worsted card will come from the Davis & Furber Machine Company, North Andover, Mass. In addition to this there will be one double can gill box, one two-spindle gill box, one two-spindle drawing box, one two-spindle weigh box, one two spindle finisher, one flyer spinner, one ring spinner, one cap spinner, one cap twister and one ring twister. This machinery is from the works of Prince, Smith & Son, Keighley, England, whose agents are Messrs. Stoddard, Haserick, Richards & Co., of Boston.

The claim has been made several times lately that the Lowell Textile School is the best-equipped school in the world, and this claim will undoubtedly be vindicated when this excellent collection of machinery is installed in position. It will be erected in connection with the woollen plant, already erected and contributed by the Davis & Furber Machine Company, and the Burr picker, which was sent by the Atlas Manufacturing Company of Newark, N. J. This room will be one of the most complete for the manufacture of woollen and worsted yarns that has ever been equipped.

The operation of the school is not confined to the manipulation of cotton and wool, but there is also an excellent collection of silk machinery from the machine shop of the Atwood Machine Company, Stonington, Conn.

Some of the most complete rooms in this school, or in fact in any school with the same objects in view, are the weave rooms, where there is a collection of sixty-eight looms for the manufacture of cotton, woollen and silk fabrics, including forty-five hand looms and twenty-three power looms, on which any fabric that it is possible to weave can be made. The power looms are almost all different, and represent some of the best productions of the Crompton-Knowles Loom Works, the Lowell Machine Shop, the Whitin Machine Company, the Draper Company and others. There are throughout the whole school a number of machines such as quillers, spooler, beamers, yarn reels and testers, which are used in the courses of instruction.

The power is derived from electric motors, the lighting is by electricity, and there is an excellent system of fire protection and of humidifiers.

The equipment of the school consists of high-grade machinery with all latest improvements, specially built to afford facilities for all kinds of experimental work and of such variety as is seldom found in any one textile mill.

In engineering this work the director has borne in mind that the whole plant will be used for educational purposes, and therefore different systems of fire protection, lighting, humidifying and power plant have been used in different rooms, so as to give the students an opportunity of comparison and of wide experience.

In the school there is the beginning of a textile museum, and the nucleus of a textile library which now contains two hundred and ninety volumes, not the least useful of which is a complete file of the proceedings of the New England Cotton Manufacturers Association; also a file of the bulletins of the National Association of Wool Manufacturers.

*The Object of the Lowell Textile School.* — The object of the school is to give instruction in the practical knowledge necessary in the cotton, woollen, worsted and other textile industries, in science and art as applied to these industries, and in the processes and methods for the purpose of improving any special trade, or of introducing new branches of industry. It is essentially a trade school, and the whole plan provides for such instruction only as will be found useful in textile trades.

Science and art are taught, but not with the object of educat-

ing professional men, but with a view to industrial and commercial applications; but the school offers to graduates of universities and scientific institutions an opportunity for technical instruction in the practical application of certain branches of science.

The staff of lecturers and instructors consists of men who, in addition to their special experience in textile school work, have been for years practically engaged in mill work; and it is the object of the trustees to give technical instruction that shall be equal to that of the best European schools, and at the same time of a thoroughly practical nature.

*The Operation of the Lowell Textile School.* — The operation of the school is in three directions: —

First, day classes. These are specially intended for the instruction of young men whose intention it is to enter the business of textile manufacturing in any branch, and who have not been engaged in a textile mill, or who have already been engaged in such business and wish to improve their knowledge and opportunities, and who are able to devote their entire time to study. The complete collection of machinery enables every process to be practically illustrated.

Second, evening classes. The second branch of the school work is intended to give thorough evening instruction to those who are engaged during the day in mills and shops in the Merrimack valley; to enable those who wish it to perfect their knowledge of the branches in which they work, to acquire knowledge of other processes than those in which they are engaged in the daytime, and in the course of several winters to obtain a thorough technical education at a low cost and without interfering with their daily labor.

Third, popular lectures. The third means of encouraging textile instruction is by a course of popular lectures. These lectures are given by recognized authorities in the branches of which they treat, and afford an opportunity to the students in the school, and to inhabitants of Lowell and vicinity who do not care to take a regular course, to attend popular illustrated textile lectures.

The instruction given during the last few months has been preliminary to further instruction which will be given to the same students in two succeeding years, and the students have



so far practically all taken the same course of instruction. The number, however, has grown so large and there has been such a demand for special courses that at the beginning of the fall term these students and others who entered the school were given the option of five courses: a cotton manufacturing course; a woollen manufacturing course; a designing course; a chemical, dyeing, bleaching and finishing course; and a decorative art course. Thus the needs of most of the branches of textile industry represented in Massachusetts are met. The keynote of the work of this school is "thoroughness;" nothing is treated from merely a theoretical point of view, everything is illustrated practically. The system is such that no student is allowed to pass forward to a new machine or new study until he has thoroughly mastered the one on which he or she is engaged. The school was opened the last of January, 1897, and one hundred and fifty-one students were immediately enrolled, while a considerable number could not be received. At the opening of the second term, Oct. 4, 1897, two hundred and ninety-nine applications for admission were received, and about two hundred and fifty of these were entered as students. Almost monthly since the opening of the school it has been necessary to add to the staff of instructors, to the machinery and apparatus employed or to the departments of instruction. These facts prove that the school has been a long-felt want.

It is hoped that the Lowell Textile School will make for itself a reputation by the excellence of its results rather than by sending out a large number of imperfectly trained graduates; and that in the future its development will be coincident with and contributory to a new era of prosperity in New England textile manufacturing; in helping to introduce the manufacture of those textiles which are now imported from abroad to an extent exceeding one hundred million dollars' worth annually; and in case the manufacture of the coarser fabrics is transferred to the Southern States, in helping to introduce finer and more elaborate goods to take the place of the coarser. The time is approaching when the textile business will be learned in such a school. The mill itself is an establishment for making cloth, and not primarily for the education of would-be overseers or superintendents; in fact, from a combination of reasons, a young man often finds a difficulty in obtaining all the infor-

mation that he desires in a mill. The opposite is the case in a school where the primary object of the lecturers and instructors is to instil all the information possible. There can be no doubt but that three years judiciously spent in a school are equal to twice that time in a mill. The school issues a catalogue which gives fuller information as to the courses than is possible in this report. The Lowell Textile School is undoubtedly only the first of a group that will be established in this country before the close of the century. We shall be able in this matter to profit by the experience of other countries that have experimented with technical education until they have found the most appropriate and suitable methods to fit their case. In England, for example, the money available for technical instruction has been frittered away in a large number of insignificant schools, rather than concentrated upon one or two thoroughly equipped and well-manned institutions, which should serve as textile universities, to which the student and the manufacturer alike can turn for information and assistance, and from which every year brainy textile men would graduate, whose influence and knowledge would be devoted to the further development of textile industry.

The Lowell Textile School is not merely a local school, though it has by force of circumstances been located in one of the oldest and perhaps one of the most suitable manufacturing cities for the purpose. It is a New England institution; its advantages and opportunities are open to citizens of any other city. In turn it claims the sympathy of all interested in the welfare of New England, and especially in the prosperity of the textile industries of Massachusetts.

## APPENDIX A.

## TRUSTEES OF THE LOWELL TEXTILE SCHOOL.

A. G. CUMNOCK, *President.*A. G. POLLARD, *Treasurer.**Representing the Commonwealth of Massachusetts.*

AUGUSTUS LOWELL, Esq.

HOWARD STOCKTON, Esq.

*Representing the City of Lowell.*Hon. J. W. BENNETT, *Mayor of Lowell.*A. K. WHITCOMB, *Superintendent of Schools, Lowell.*

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EDWARD W. ATKINSON, selling agent for textile machinery, Boston.  
FREDERICK E. CLARKE, late agent of the Pemberton Mills, Lawrence.  
FREDERIC S. CLARK, treasurer of the Talbot Mills, North Billerica.  
A. G. CUMNOCK, late agent of the Boott Cotton Mills, Lowell; chairman of instruction and finance committee.  
CHARLES L. HILDRETH, agent of the Lowell Machine Shop, Lowell.  
EDWARD W. HOLDEN, agent of the Sterling Mills, Lowell.  
FRANKLIN W. HOBBS, assistant treasurer of the Arlington Mills, Lawrence;  
EUGENE S. HYLAN, treasurer of the New England Bunting Company, Lowell.  
FREDERICK LAWTON, attorney-at-law.  
ALVIN S. LYON, agent of the Lowell Manufacturing Company, Lowell; chairman of the equipment committee.  
WALTER E. PARKER, agent of the Pacific Mills, Lawrence.  
HAVEN C. PERHAM, treasurer of the Kitson Machine Company, Lowell.  
A. G. POLLARD, president of the Lowell Hosiery Company, Lowell; chairman of the committee on rooms.  
J. W. C. PICKERING, treasurer of the Pickering Knitting Company, Lowell.  
JACOB ROGERS, director, Tremont and Suffolk Mills, Lowell.  
JAMES T. SMITH, secretary of the Lowell Board of Trade and clerk of the corporation.  
WILLIAM S. SOUTHWORTH, agent of the Massachusetts Cotton Mills, Lowell.  
EDWARD W. THOMAS, agent of the Tremont and Suffolk Mills, Lowell.  
THOMAS WALSH, superintendent of the Hamilton Print Works, Lowell; chairman of the chemistry and dyeing committee.

## APPENDIX B.

## LOWELL TEXTILE SCHOOL STAFF.

*Director of the School.*

Prof. C. P. BROOKS.

*Principal of the Chemistry and Dyeing Department.*

Prof. LOUIS A. OLNEY.

*Principal of the Cotton Department.*

Prof. C. C. HEDRICK.

*Principal of the Decorative Art Department.*

Prof. VESPER L. GEORGE.

*Principal of the Designing Department.*

Prof. FENWICK UMPLEBY.

*Principal of the Department of Mechanics.*

Prof. W. W. CROSBY.

*Principal of the Weaving Department.*

Prof. WILLIAM NELSON.

*Assistants in Instruction and Administration.*

M. J. BUCHER,

F. L. LEAVITT,

H. McDERMOTT,

THOMAS E. AINLEY,

A. J. PEASE,

A. B. MARINEL,

SAMUEL HOLT,

J. I. BROADBENT.

## APPENDIX C.

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### REGISTERED STUDENTS, LOWELL TEXTILE SCHOOL, FOR THE SCHOOL YEAR OF 1897-98.

Day students, . . . . .	69
Afternoon students, . . . . .	21
Evening students, . . . . .	184
Total, . . . . .	<u>254</u>

#### *Day Students' Qualifications for Entry.*

Graduates of universities, . . . . .	2
Graduates of schools of technology, . . . . .	6
Graduates of high schools, . . . . .	30
Graduates of grammar schools, . . . . .	13
Passed entrance examination or entered on evidence of proficiency, . . . . .	18
Total, . . . . .	<u>69</u>

#### *Students according to States.*

Massachusetts, . . . . .	236
Maine, . . . . .	2
New Hampshire, . . . . .	5
Vermont, . . . . .	1
Rhode Island, . . . . .	1
Connecticut, . . . . .	1
Canada, . . . . .	1
Georgia, . . . . .	1
Ohio, . . . . .	2
Mississippi, . . . . .	1
North Carolina, . . . . .	2
New York, . . . . .	1
Total, . . . . .	<u>254</u>

## APPENDIX D.

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### LOWELL TEXTILE SCHOOL, SCHOOL YEAR, 1897-98,—AFTERNOON AND EVENING STUDENTS ACCORDING TO OCCUPATION.

Apprentice, . . . . .	1	Mule spinner, . . . . .	1
Assistant overseer, . . . . .	1	Mill operatives, . . . . .	7
Assistant superintendent, . . . . .	1	Not given, . . . . .	4
Beamer, . . . . .	1	Overseers, . . . . .	7
Bookkeepers, . . . . .	4	Pattern cutter, . . . . .	1
Calico printer, . . . . .	1	Pin setter, . . . . .	1
Carder, . . . . .	1	Print works, . . . . .	1
Card grinder, . . . . .	1	Reed finisher, . . . . .	1
Clerks, . . . . .	14	Roving carriers, . . . . .	3
Cloth stamper, . . . . .	1	Roving hand, . . . . .	1
Cloth inspector, . . . . .	1	Roving preparer, . . . . .	1
Color makers, . . . . .	2	Second hands, . . . . .	5
Color matcher, . . . . .	1	Section hands, . . . . .	10
Cotton waste merchant, . . . . .	1	Sketchmakers, . . . . .	2
Designers, . . . . .	2	Slasher tenders, . . . . .	2
Draughtsmen, . . . . .	8	Spare hand, . . . . .	1
Drawing-fixer, . . . . .	1	Spinners, . . . . .	14
Drawer-in, . . . . .	1	Storekeeper, . . . . .	1
Dyers, . . . . .	10	Students, . . . . .	4
Engraver, . . . . .	1	Superintendent, . . . . .	1
Finishers, . . . . .	2	Warp dressers, . . . . .	4
House-keeper, . . . . .	1	Weavers, . . . . .	19
Learning cotton business, . . . . .	1	Winder, . . . . .	1
Loom fixers, . . . . .	6	Wool combers, . . . . .	2
Machinists, . . . . .	18	Wool sorters, . . . . .	5
Messenger, . . . . .	1	Worsted spinner, . . . . .	1

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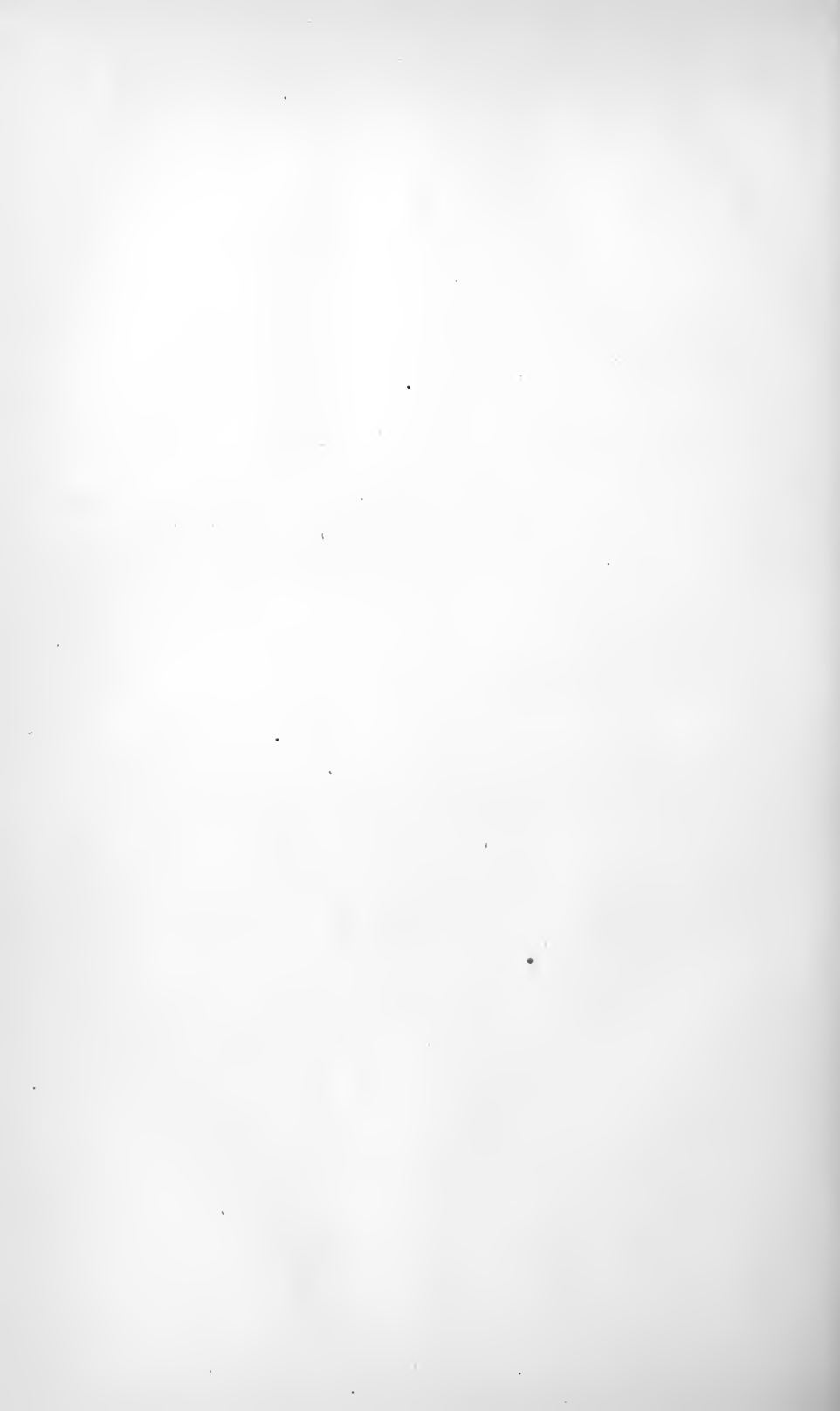
EXTRACTS

FROM THE

REPORT OF THE COMMITTEE OF TWELVE  
ON RURAL SCHOOLS

APPOINTED AT THE MEETING OF THE NATIONAL  
EDUCATIONAL ASSOCIATION, JULY 9, 1895.

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## REPORT OF THE COMMITTEE ON RURAL SCHOOLS.

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### EXTRACTS FROM THE REPORT OF THE GENERAL COMMITTEE.\*

*The Committee.* — The Committee of Twelve, as finally constituted, consisted of the following gentlemen, members of the National Council of Education: Henry Sabin, Des Moines, Ia., chairman; B. A. Hinsdale, Ann Arbor, Mich.; D. L. Kiehle, Minneapolis, Minn.; W. T. Harris, Washington, D. C.; A. B. Poland, Trenton, N. J.; C. C. Rounds, Plymouth, N. H.; J. H. Phillips, Birmingham, Ala.; S. T. Black, Sacramento, Cal.; W. S. Sutton, Houston, Tex.; C. R. Skinner, Albany, N. Y.; L. B. Evans, Augusta, Ga.; L. E. Wolfe, Kansas City, Mo.

*Appropriation for the Committee's Work.* — On the twelfth day of July (1895) the directors of the National Educational Association adopted a series of resolutions, under which a sum not exceeding two thousand five hundred dollars was set aside and placed in the emergency fund for the use of the committee. At a meeting of the directors at Buffalo (1896), upon the request of the council, an additional one thousand dollars was placed in this fund for the use of the committee.

*Division of the Work.* — The entire committee was divided into four subcommittees, and assigned certain topics each for investigation and report. These subcommittees were constituted and the work assigned to each in accordance with the following schedules:—

I. School Maintenance. Subcommittee: B. A. Hinsdale, chairman; W. S. Sutton, S. T. Black.

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\* The full report is a pamphlet of 228 pages. It may be obtained for fifteen cents and postage upon application to Irwin Shepard, secretary of the National Educational Association, Winona, Wis.

II. Supervision. Subcommittee: L. B. Evans, chairman; C. R. Skinner, Henry Sabin.

III. Supply of Teachers. Subcommittee: C. C. Rounds, chairman; J. H. Phillips, D. L. Kiehle.

IV. Instruction and Discipline. Subcommittee: W. T. Harris, chairman; A. B. Poland, L. E. Wolfe.

*Meetings and Discussions.* — The committee met at Jacksonville, Fla., Feb. 18 and 19, 1896, for consultation and comparison of results. An informal meeting was held during the sessions of the National Educational Association at Buffalo in July, 1896, at which time it was determined to hold a meeting of the full committee at Chicago, Nov. 18–21, 1896. It was also voted to ask certain experts in rural school matters to meet with the committee, in order that it might have the benefit of their experience.

The committee met at the Auditorium in Chicago, as determined. Wednesday and Thursday were devoted to general discussion, one half day being allotted to each of the four subcommittees in the following order: School Maintenance, Supervision, Supply of Teachers, and Instruction and Discipline. Friday and Saturday were devoted to the consideration of the preliminary reports submitted by the chairmen of the respective subcommittees. The sessions were held from 9 A.M. to 12 M. and from 3 to 6 P.M. In order to facilitate discussion, printed or typewritten copies of the main propositions in each report were placed in the hands of those present. During Friday and Saturday the reports were read section by section, and, after alterations and amendments as suggested by various members of the committee, they were adopted.

*School Maintenance.* — All the subcommittees are strongly in favor of the consolidation of schools which are too small to employ profitably the time of one teacher into larger schools, when practicable, in order that better instruction may be provided than is possible under the present system. This involves also paying for the transportation of pupils to some central school at the public expense. The different subcommittees have reached this conclusion, each from its own stand-point. The inferences drawn from facts and figures are too obvious to need any argument. The conclusions arrived at in the discus-

sion of the two points, organization and consolidation, are very broad, and would seem to be applicable to some section of nearly every State in the Union.

The manner of raising and distributing the revenues has been carefully investigated, and the subcommittee having that subject in charge seems to have reached very wise and just conclusions. The township, or special district, in which the parents of the pupils reside should contribute to the school funds, as should the county and the State. Every interest concerned in the education of children should bear a proportionate share of the burden of taxation. In the distribution of school funds, because of the community of interests involved in popular education, the strong and wealthy must contribute to the support of schools in weak and impoverished districts. It may not be possible to provide equal school facilities in every part of the State, but every district in which a school is established should be assured beyond all doubt of a sufficient sum of money to employ a competent teacher for the minimum number of months or days fixed by the law. The duty of providing for the pupils of the rural schools the means whereby they can have the benefit of high schools in their neighborhood has not been overlooked.

*Supervision.* — No one questions that supervision should be compulsory. In fact, such is the case in most States to-day. The great question connected with it is how to make it effective. A supervisor who has charge of a hundred schools or more, scattered over an entire county, finds it impossible to control and direct them in accordance with well-devised plans. Accordingly the subcommittee urges township or district supervision where it is practicable, or that each supervisor should have such deputies or assistants as will enable him to reach every part of his field. Again, if supervision is to be effective, it must be the product of skill and intelligence. As well put an ordinary seaman, selected from the crew by lot, in charge of an ocean steamer, with its precious cargo of lives and wealth, as to place a raw, uncultivated man or woman, selected by the chances of a political convention, in charge of the schools in which our youth are being trained for citizenship. The subcommittee is of the opinion that certain qualifications, moral

and mental, with some experience in teaching, should be exacted from every one who aspires to the duties of a supervisory office. The duties which are incumbent upon a supervisor of schools have been so minutely discussed that it is not necessary to re-state them here. It is sufficient to say that knowledge and skill, enthusiasm and patience, sympathy and forbearance, firmness and justice, are requisite in one who would discharge his duties conscientiously and with due regard to the highest good of all concerned.

The importance of bringing the school into touch with the farm and the home has been dwelt upon at some length. To this end the supervisor should make himself thoroughly acquainted with peculiar conditions of life in his supervisory district. It is not enough that he visit the school and consult with the teacher. He must meet school officers and parents, awaken their sympathy and arouse their interest, if he would do his whole duty. He must have a controlling influence in the selection of teachers, in the erection of school buildings, especially as concerns sanitation and hygiene, in teachers' meetings, and in general school work throughout his entire territory.

A wise supervisor cannot fail to observe carefully the environments of the school, which exert a powerful, though unconscious, influence upon the character of the pupils. The bearings of the æsthetical upon the ethical side of the child's nature, the relations of music and art as determining the development of the child along right lines, should be observed and guarded as well in the rural as in the city schools.

*Supply of Teachers.* — The question of the support afforded teachers is one great hindrance in the way of improving the rural school. The following table, showing the average monthly salaries paid teachers in rural schools, has been compiled from answers to circulars sent to State superintendents. It is unfortunate that in most States the statistics make no distinction between city and rural teachers; consequently many of the returns are estimated. They are valuable, however, for purposes of comparison and general information.

	Males.	Females.		Males.	Females.
Alabama, . . .	\$25	\$20	Missouri, . . .	\$40	\$34
Arkansas, . . .	33	30	Montana, . . .	60	45
California, . . .	67	56	Nebraska, . . .	35	30
Colorado, . . .	50	45	Nevada, . . .	85	60
Connecticut, . . .	30	30	New Hampshire, . . .	30	30
Delaware, . . .	35	33	New York, . . .	37	37
Illinois, . . .	30	25	Ohio, . . .	35	29
Indiana, . . .	40	35	Pennsylvania, . . .	42	33
Iowa, . . .	35	30	Rhode Island, . . .	40	36
Kansas, . . .	40	32	South Carolina, . . .	30	27
Kentucky, . . .	36	34	South Dakota, . . .	36	31
Louisiana, . . .	40	33	Utah, . . .	53	37
Maine, . . .	35	22	Vermont, . . .	39	27
Maryland, . . .	29	29	Virginia, . . .	28	25
Massachusetts,* . . .	32	26	West Virginia, . . .	36	36
Michigan, . . .	29	25	Wisconsin, . . .	46	30
Minnesota, . . .	40	31	Wyoming, . . .	45	40

\* Based on 52 male teachers and 143 female teachers in towns under a valuation of \$500,000.

In connection with above table we must take into account that in only a few States is the average length of the school over eight months. This includes cities and towns, as well as rural districts, so that it is fair to conclude that in general the country teacher finds employment not to exceed seven months in a year, and often not more than five or six.

The subcommittee regrets that so few are able to apprehend the qualities essential to a good teacher. Professional fitness is ignored in nearly every case. The smaller the unit of organization, the greater is the disposition to engage teachers for short periods of time. All engagements should be for one year at least, and frequent changes of teachers should be discouraged.

*Instruction and Discipline.*—The evils of attempting to grade the rural school as the city school is graded are very clearly set forth, accompanied by the suggestion that those normal schools which as part of their work train teachers for rural schools should carefully impress upon such teachers the necessity of considering the size of the school in determining the uses and abuses of grading and classifying pupils. This suggestion is all the more pertinent in view of the movement in many States to require some previous professional training as a prerequisite for entering any public school as a teacher.

Considering that the course of study for the rural school need not differ in any material point from that provided for the city school, it is urged that the aim of such a course is to enable the pupil to recognize the conditions of inorganic and organic nature, and to pursue the studies of literature, language and history, as they are necessary for his entrance upon civilization. The difference in courses of study for rural or city schools is found to be in those collateral branches which relate to the environment of the pupil or to the neighborhood in which he dwells. The report upon this point is very full, and will repay a careful study of its details. The subcommittee calls especial attention to the relation of the course of study to the system of grading and classification. The suggestions made are of great practical value in any discussion which endeavors to determine the method of adapting a course of study to the wants and conditions of rural schools. It cannot but be very helpful to be told that the course of study is the measuring rod used only to determine at what point in his work the pupil has arrived, and not a Procrustean bed used to give the work the lifeless beauty of a dead uniformity.

The consolidation of those schools which have become so reduced in numbers as to render it unprofitable to maintain them separately, the transportation of pupils at public expense to other schools than their own, and the concentration of higher grade pupils at a central point, are urged as means of lessening many of the evils from which rural schools are suffering. This provision, having been grafted into the law of several States, bids fair to prove of great benefit. Wherever it has been tried it has commended itself as economical, and as a means of affording better teachers and consequently better schools. The matter of improved roads enters incidentally into this discussion, as having great bearing upon the question of transporting children to central points for school purposes.

#### SUMMARY OF POINTS MADE BY THE GENERAL COMMITTEE.

1. For purposes of organization, maintenance or supervision, nothing should be recognized as the unit smaller than the township or the county; the school district is the most undesirable unit possible.

2. Every community should be required to raise a certain sum for the support of its schools as a prerequisite for receiving its share of public money. A certain definite sum should be appropriated to each school out of the State funds, and the remainder should be divided in accordance with some fixed and established rule, a discrimination being made in favor of townships most willing to tax themselves for school purposes.

3. One of the great hindrances to the improvement of the rural school lies in its isolation, and its inability to furnish to the pupil that stimulative influence which comes from contact with others of his own age and advancement. The committee, therefore, recommends collecting pupils from small schools into larger, and paying from the public funds for their transportation, believing that in this way better teachers can be provided, more rational methods of instruction adopted, and at the same time the expense of the schools can be materially lessened.

4. There is a tendency to fill the rural schools with untrained, immature teachers. The establishment of normal training schools, under competent instructors, with short courses, each year of which shall be complete in itself, would do much to remedy this evil. The extension and adjustment of the courses and terms of the State normal schools so as to constitute a continuous session would enable them to contribute more directly than now to the improvement of the teachers of rural schools. The State would then be justified in demanding some degree of professional training from every teacher in the rural as well as in the city schools.

5. The establishment of libraries, the prosecution of the work of school extension by lectures and other means, the introduction of such studies as will have a tendency to connect the school and the home, especially those having a direct bearing upon the every-day life of the community, and the necessity of applying the laws of sanitation to the construction of rural schoolhouses, demand immediate attention.

6. The rural schools are suffering from the want of official and intelligent supervision. In every State some standard of qualifications, moral and intellectual, with some amount of actual experience, should be demanded by law from those who aspire to fill the office of superintendent or supervisor of schools.

7. Good morals and good manners constitute an essential part of an educational equipment. The inculcation of patriotism, of respect for law and order, of whatever tends to make a good citizen, is of as much importance in a small as in a larger school. Regularity, punctuality, obedience, industry, self-control, are as necessary in the country as in the city school. Country school teachers should call to their aid the beautiful things in nature, that with reverential spirit they may lead the children to reverence Him who hath made all things good in their season.

#### EXTRACTS FROM THE REPORT OF THE SUBCOMMITTEE ON SCHOOL MAINTENANCE.

##### REVENUE.

*Expenditures for Common Schools.* — The educational items in the budgets of all progressive countries have assumed great proportions, and are all the time growing. The Commissioner of Education reports the expenditure for common schools in the States of our Union for the year 1894-95, not including payments on bonds, at \$178,215,556. Seven States expended more than \$5,000,000 and less than \$10,000,000 each, and five more than \$10,000,000 and less than \$20,000,000 each. New York alone stood at about \$20,000,000. In 1888-89 the total for the country was \$132,129,000, and in 1883-84 only \$103,909,528. But, unfortunately, we have no statistics showing the division of these vast sums between the rural districts and the towns and cities. A *city*, in the dictionary of the National Census Office, is a concentration of population containing 8,000 people or more of all ages, and in 1894-95 there were 574 cities in the country. The Commissioner of Education reports for the year 1894-95 that 3,302,841 children were enrolled in the schools of these cities, to 10,894,911 enrolled in other schools. He reports further that the maintenance of these city schools cost \$74,721,332, of the others \$102,876,359. But this is no proper division of rural and urban schools, since the educational conditions existing in many centres of population containing less than 8,000 people are the same as those existing in the 574 cities. At present it costs much more to school 1,000, 10,000, or 100,000 children in the cities than in the



country ; but this is mainly due to the fact that the education furnished is so much greater in quantity and so much better in quality. It is not improbable that, if rural schools were brought as near as possible to the level of urban schools, they would be quite as costly. At least, it is evident that the first condition of good rural schools is a sufficiency of funds with which to provide and maintain them. How shall these funds be provided?

*Permanent School Funds.*—A century ago the American people began to take an interest in the creation of permanent school funds or endowments. This interest was originally stimulated, if not created, by the policy that Congress foreshadowed in 1785, and subsequently firmly established, to endow the common schools in the public land States with liberal grants of public lands. In every State in which Congress has exploited the wild lands either one thirty-sixth or one eighteenth part of such lands has been dedicated to the public schools. Beginning with Connecticut in 1795, nearly all the non-public land States have also created such endowments out of their own resources. Several of them devoted the United States deposit fund of 1837 to this purpose. At the beginning of the century no one dreamed to what proportions public education would grow in one hundred years ; and men thought, not unnaturally, that permanent endowments would greatly ease the burden of taxation for school purposes, and would keep the educational machinery of the State constantly running and well regulated. It will not be denied that, relatively, these funds have come far short of meeting the expectations of those who laid their foundations. There can be little doubt that, in many of the States, and particularly when such States were new and poor, they have hastened educational development ; but it is quite certain that they have often done great harm, causing the people to rely upon the feeble income derived from them, and to turn their faces away from the only adequate source of school maintenance,—that is, public taxation. Texas has been gazetted as having the most magnificent possibilities of any State in the way of a permanent school fund ; but some citizens of that State are now questioning whether these possibilities may not prove other than an unmixed blessing. The fact is, public schools in

the United States have far outgrown all present or prospective endowments. In 1888-89 the income from such funds was \$9,825,000 in a total of \$132,125,111; in 1894-95 the corresponding figures were \$8,336,612 and \$177,597,691; that is, the per cent. fell from 7.4 to 4.7 in six years. New York and Ohio derive less than \$300,000 each of their great school revenues from permanent funds, and Pennsylvania derives nothing from such a source. In fact, it would require a permanent fund of \$400,000,000 to carry on, at the present scale of expenditure, the common schools of either New York or Pennsylvania. The subcommittee submits, therefore, that all permanent school funds, either State or local, should be carefully husbanded and wisely administered; that they should be preserved intact, and the income be scrupulously applied to the support of schools; that, under special conditions, it may be wise to augment old funds or create new ones, as when certain miscellaneous revenues can be devoted to that purpose; but that such funds must necessarily play a constantly diminishing part in popular education. Massachusetts is committed to the policy of adding to her fund \$100,000 a year, raised by taxation, until a total of \$5,000,000 shall be reached, and New Jersey to the policy of similarly dedicating the proceeds of certain riparian rights that belong to the State; and to this there is no objection; but for these States, or any others, to lean heavily upon such funds for school maintenance would be a most fatuous policy. Public education is, or at least should be, a recognized function or service of the State; the public schools of the country are civil schools, created and carried on by the civic authority, and they must rest ultimately upon the same general means of support as the other functions or services of government. As well, therefore, endow any other branch or function of the State government, such as the asylums and hospitals, the judiciary, the civil service, or the militia, as the State schools!

*Gifts to Popular Education.* — Gifts to popular education should be sedulously encouraged. Education has long been a favorite object with public benefactors, as the annals of every progressive country show, and none more convincingly than our own. No doubt when the public mind is aroused to the advantages of popular education, and school taxes are abundant,

such persons who choose an educational object for their beneficence will rather be inclined to seek some other form or kind of education. Still, the constitution or laws of nearly every State, if not indeed every one, provide for the acceptance and use of private gifts for school purposes, and there are generous persons who are peculiarly interested in the common schools. Scattered over the country are many local public school endowments that had a private origin, and such gifts have not come to an end. The subcommittee is not aware that there are any statistics showing how far private benevolence contributes to public education, but it is apprised that the contribution is by no means contemptible, and it believes that it might be made considerably larger than it is. The favorite forms of such contributions, under existing conditions, are most likely to be land for building sites, and apparatus and libraries for schools; and the subcommittee is of the firm opinion that much more could be done than at present in all these directions, and particularly in the way of procuring apparatus and books for the schools in communities where the public funds that are available for these purposes are meager or insufficient.

*Taxation the Great Resource.* — The great resource of the public school *is, and must continue to be*, some form or forms of public taxation. The ratio of the total school revenues derived from taxes to those derived from permanent funds is all the time growing, and it will continue to grow. At two periods separated by six years the sources of the common school revenues, expressed in per cents., were as follows: —

YEAR.	Taxes.	Permanent Funds.	Other Sources.
1888-89, . . . . .	85.9	7.4	6.7
1894-95, . . . . .	85.7	4.7	9.6

Manifestly such areas or units of taxation should be created, or continued if already in existence, as will fully develop the sound American principle, that *the whole wealth of the State shall be made available for educating all the youth of the State*. This is both right and necessary, for it must be remembered that, in the United States, education is a civil, or State, func-

tion, to be supported like other similar functions. What shall these units of taxation be? The subcommittee names those following as coming under the principle just stated.

1. *The State.* — A liberal provision of funds from the State treasury, to be distributed according to some rational method, is indispensable, as a rule, to the maintenance of a good system of State schools. Formerly the burden was mainly or wholly thrown upon the local units. The old Massachusetts plan was to throw upon the towns the whole burden of maintaining their own schools. But the greatly increased cost of schools, growing out of enhanced salaries, longer terms and improved material equipment, long ago demonstrated that this plan must be materially modified. Many local taxing units are too poor to carry such a load, and they must either abandon all hope of good schools, or they must receive assistance from the State or social whole. This fact began to gain recognition as early as the middle of the century. When the constitution of Ohio, adopted in 1851, provided that the Legislature should make such provisions, by taxation or otherwise, as, with the interest arising from the permanent school fund, would secure a thorough and efficient system of common schools throughout the State, the law-making power hastened to levy upon all the property of the State, as rated by the assessors, a State school tax of two mills on the dollar, to be distributed on the basis of the school enumeration. Taking the country together, the cost of public education is divided between two or more taxing units. Still the fact remains that the part which falls to the local unit is often disproportionate. In 1888–89 the per cent. of the total amount of school revenues raised by local taxation was 66.8 to 19.1 per cent. raised by State taxation. In 1894–95 the corresponding per cents. were 67 and 18.7. The ratio of the two elements is variable in different divisions of the Union and in different States of the same division. The per cents. raised by State tax, as reported, range all the way from zero to a maximum of 83.2, found in North Carolina. We should naturally expect the southern States, since local government is there less fully developed than at the north, to rely relatively much less on local taxation and much more on State taxation; and such is the fact. But political habit is not the only factor that enters into the problem; economical conditions

also assert themselves. In a State where wealth abounds, and is somewhat evenly distributed throughout its limits, as where manufacturing and commercial towns are frequent, there is not the same necessity for the State, as a unit, to assume a large proportion of the whole burden, that there is in a State where wealth is meager, and where such wealth as exists is largely found in a few concentrations of population, leaving large areas thinly populated and poor. These remarks will throw light on the per cents. of school moneys raised by State taxation and local taxation in the five divisions of States that the census office recognizes. The date is 1894-95. No account is here taken of income from other sources than taxation.

DIVISIONS.	State Taxes.	Local Taxes.
North Atlantic States, . . . . .	19.4	68.2
South Atlantic States, . . . . .	38.1	51.3
South Central States, . . . . .	48.4	31.7
North Central States, . . . . .	9.9	75.4
Western Division, . . . . .	23.0	61.3

In some of the States, as will be shown hereafter, local taxation must be more fully developed than in the past or present; in others, and these principal States, too, the same may be said of state taxation.

2. *The County.* — In all States where, for other local purposes, the county is the sole unit of taxation, a liberal county tax should be levied for the schools. This proposition applies especially to those States where the county system of local government prevails. In States where, for such purposes, the county is a large unit of taxation, it may be wise to levy a county school tax; that, circumstances must determine. This remark applies to the States having the mixed system of local government. Under the town system, county taxation for schools would be out of harmony with the social and political traditions of the people, and could be accomplished only through a change of habit; perhaps this end is attainable. For the year 1894-95 the Commissioner of Education shows that 67 per cent. of the total school revenues of the country came from local taxes. The scale ran from 1.7 per cent. in

North Carolina to 98.2 in Massachusetts. Unfortunately, we have no statistics showing from what sources the local taxes come, — how much from districts, towns and counties, respectively. The point must, however, be strongly pressed, that local supply for public education should be forthcoming, as well as State supply. It is a great mistake to teach the people to look altogether, or mainly, to the State treasury for school maintenance; they should rather be taught to depend in due measure upon themselves. It is the confident opinion of the subcommittee that some States are now committing this mistake. Many States having the county system of local government have in the counties a resource for school maintenance upon which they have never adequately drawn.

3. *The Town or Township.* — In those States where the town or township is a large taxing unit for other local purposes, it should also be made to contribute liberally to public education. This recommendation it would be idle to urge in most of the southern and in some of the western States, because the civil town or township does not exist, and it would be vain to urge its creation for school purposes exclusively. But in those States where the town and mixed systems of local government exist, a township school tax would be congruous with the general social and political habits of the people. The desirability of local taxation for school purposes was urged under the last head. Such taxation develops self-reliance and local character, and tends to awaken and keep alive the interest of the people in the schools. The town was the sole school taxing unit in old New England, and it is still a prominent, sometimes almost an exclusive, one throughout the northern States. The local school taxes of New England are town and district taxes, and, taken together, they range from the minimum of 69.2 per cent. of the whole in Maine to 98.2 in Massachusetts. It can hardly be doubted that the New England States, as well as some others, now throw the burden too heavily upon the towns and districts, and that they will find it advantageous considerably to raise the ratio which State taxation bears to local taxation. The other New England States will probably follow, sooner or later, the example of Maine, which raises nearly one third of her school money by State taxation. In some States, no doubt, the townships should carry

a heavier weight than at present, at least as compared with districts; at all events, the township should bear a reasonable part of the cost of its own education.

4. *Special Districts.* — Special districts, as incorporated villages, towns and cities, the subcommittee considers not only proper but necessary units of school taxation. Such districts are the concentrations, large or small, of population and wealth; they are the industrial and social centres of the country. We have already seen that, in 1893–94, \$69,886,413 was expended for school purposes in the 443 cities of the Union. In Massachusetts \$7,088,000 was expended in cities; in New York, \$12,723,000; in Pennsylvania, \$7,745,000; in Ohio, \$5,097,000; in Illinois, \$8,110,000. If we had the figures for the smaller cities and the incorporated towns, the aggregate would be much increased. Now, not only do the cities, taken together, raise by taxation nearly all of the school money that is expended in them, but, as will be shown in another place, many of them contribute largely to the support of rural schools. Again, they must in the future, collectively as before, contribute still more largely to this end. Special districts, then, are essential as taxing units, care being taken to secure approximately a fair distribution of the public burdens. As a rule, dwellers in cities are much better able to pay heavy taxes than dwellers in the country, but there is great reason to fear that they do not always do so.

The school district, in the commonly accepted sense of that term, is not a desirable taxing unit, but the contrary. It is now such a unit in a majority of States, and the subcommittee is decidedly of the opinion that it should either be made much less prominent than it is, or be abolished altogether. As a rule, the second course is to be preferred (except in special districts already mentioned). The town or township is the smallest area that should be employed for this purpose. Even this may be over-weighted, as can easily be shown. The unanswerable objections to district taxation are the inequality in burdens that results, and the inability of many districts to carry the load that good schools would necessarily impose upon them. A few statistics will make both propositions perfectly clear.

In 1871, Superintendent Fallows of Wisconsin published a

table showing the amount of property assessed per scholar in the school districts of a certain township, which he believed to be a type of the state of things generally existing throughout that State. The maximum was \$2,860; the minimum, \$784; the average, \$1,378. In 1878, Superintendent Graham, of the same State, published a table for the whole State, showing that the valuation of property per district varied from \$2,300 to \$1,979,708. Districts with less than \$3,000 and districts with \$40,000 were found in the same township. But the poor districts were required by law to maintain a school six months in the year, just as the rich ones were. The ratio of district taxation ranged from half a mill to fifty-five mills on the dollar. Superintendent Wells of Wisconsin published similar facts in 1893 for a number of States. He showed that in Rhode Island some districts were taxed fourteen times as heavily as others, and in Connecticut a similar disproportion existed. In New York the ratio of tax raised in two counties varied from .0012 per cent. in one district to .0431 in another. One township presented the extremes .0009 and .0070, and still another one .0048 and .0371. Two districts in one township paid respectively \$5.66 and \$58.11 per capita; two in another one, \$5.43 and \$60.37; two in a third, \$11.25 and \$181.85. "That is to say," says Mr. Wells, "the rate of taxation is seven times as great in one district as in another in the same town, and the per capita cost of educating a child is eleven times as great." But the first of these New York comparisons presents a ratio of almost forty to one.

Statistics such as these could be collected almost without limit. The most instructive way to study the subject is, so to speak, on the ground. If a man unfamiliar with it, who lives under the independent district system, will only take the trouble to collect the facts relating to his own county, he may easily be astonished at the result. And yet, as a rule, the law lays upon the districts, rich and poor alike, the same burdens in respect to school maintenance. It is hard to see how or why the people have so long borne such inequalities,—inequalities so contrary to the cherished American principle that the property of the State should educate the youth of the State; or, rather, it would be hard to see why they have borne them, if we did not know the extent of the public ignorance on



the subject and the strength of conservative habit, and did not see also how the district as a taxing unit is bound up in men's minds with the district as a unit of administration. But the two are not inseparable. The Legislature of Ohio abolished the district as a taxing unit twenty-five years or more before it abolished the district as an administrative unit. In Connecticut, too, town taxes and district management are both met with in the same towns.

*Advantage of Using Large Units for School Taxation.* — Before dismissing units of school taxation, a single point calls for closer attention. This is raised by the question, What is the advantage of looking to large units for supply, rather than small ones?

The answer to this question rests upon the fundamental assumption that public education is a State function, and that the whole State is responsible for the education of all the youth of the State. Now, if the cost of public education bore the same ratio to the ability of the people to bear this cost in all the communities of the State, or, what is nearly the same thing, if the wealth per capita of all the communities were equal, then, as a matter of course, it would make no difference whether the school tax were levied upon large areas or small ones. But this is far from being the case. The cities are indeed concentrations of both absolute population and school population, as well as of wealth; but their wealth tends to increase much more rapidly than either the absolute or the school population. The fortunes of the country are either made in the cities, or else tend to flow into the cities. The last report of the census office shows the per capita wealth of the Union, of the States severally, and of the five groups of States, but it does not show the per capita wealth of the cities and of the rural districts separately. The nearest approach to it is the tables showing the per capita value of real estate with improvements, by States and counties. These averages throw important light upon the subject, and some examples will be given.

Illinois: State average, \$860.88; highest county average, \$1,311.90; lowest county average, \$164.64.

Massachusetts: State average, \$848.01; highest county average, \$1,564.10; lowest county average, \$466.65.

New York: State average, \$969.66; highest county average, \$1,733.35; lowest county average, \$305.80.

Ohio: State average, \$689.01; highest county average, \$1,562.56; lowest county average, \$265.99.

Pennsylvania: State average, \$719.13; highest county average, \$1,049.88; lowest county average, \$187.26.

If personal property were included, the extremes per capita would be still more widely separated than they are at present. Formal argument is not needed to show that the rich counties are much more able to contribute to the expense of government, education included, than the poor ones, and the proposition that a due proportion of such expense should be thrown upon these units rests upon this fact. The tendency would be to remove inequalities in bearing the common burden. Levying the local school tax upon the township instead of the districts that compose it, or upon the county instead of the townships, would work in this direction. It is very true that townships are unequal in per capita wealth as well as districts, and counties as well as townships; still, the fact remains that large units are less unequal than small ones. Every step towards the highest taxing unit tends to distribute the burden more equally. In fact, the argument for removing a portion of the burden from the small taxing units to the large ones is the same that justifies us in calling upon society to educate individuals or families that are too poor to provide for their own education. Why do we impose a public tax for educational purposes at all? Simply because education is a common interest, while some individuals or families are unable to educate themselves.

*Importance of Local School Taxation.* — It may be said that the line of reasoning which has been followed would lead to placing the whole burden of State education at the door of the State treasury. Why should not the State defray the cost of the common schools, just as it defrays the cost of the reform schools for boys and girls, and of the asylums and hospitals? It must be confessed that this would be strict logic. However, we are to remember that governments are never carried on according to strict logic, and cannot be, from the very nature of the case. What is more, there are the best of reasons, as shown above, for making education, to a reasonable degree, a local charge, — reasons that do not apply to some other public

services. The people are more likely to be vitally interested in the schools if a portion of their cost is derived from local taxes. In no country of the world, so far as the subcommittee is aware, is elementary education made an exclusive general charge. It is not desirable that it should be. The present contention is for a reasonable distribution among the several taxing units. At the same time, it may be worth observing that in some countries there is a strong tendency, as in England and France, to rely more than formerly upon general rather than local supply.

*How the Different States raise Money for Schools.* — The appropriations for schools that States make from the common treasury differ greatly in form as well as in amount. Massachusetts levies no State school tax, but the Legislature nevertheless votes various specific appropriations, as for the salaries and expenses of State agents, aid to pupils of normal schools, compensation of local superintendents, the payment of high school tuition for pupils living in towns whose valuation of property does not exceed \$500,000 and that do not maintain a high school. Connecticut raises annually a State school tax equal in amount to \$1.50 multiplied by the number of persons in the State between the ages of four and sixteen, as enumerated annually. Rhode Island, while not levying a State school tax, so called, votes enough money out of the State treasury each year to make, with the income of the permanent fund, a total of \$120,000. New York raises annually, by taxation based on the real and personal property of the State, such sum for the support of schools as the Legislature shall determine. New Jersey assesses and collects a total State tax amounting to \$5 for each person in the State between the ages of five and eighteen years. It is this tax that places New Jersey at the head of the column of northern States in respect to the per cent. of school revenue derived from a State tax. The constitution of Pennsylvania provides that the State Legislature shall appropriate every year \$1,000,000 from the State treasury for the use of schools, but the present appropriation is \$5,500,000. Ohio levies a tax of one mill on the dollar of the grand tax duplicate of the State. Indiana raises eleven cents, and Kentucky twenty-two cents, on each \$100 of taxable property. The Michigan law directs the supervisor of every township to levy

a school tax of one mill on the dollar for schools within the township; but, as the proceeds are kept within the districts where they are raised, this is only a compulsory local tax; still, it stimulates further local taxation for the grand object. The Legislature of Michigan also levies a specific tax on certain corporations, as railroads, etc., which is first applied to the payment of the interest on the various educational funds that the State has borrowed, as the university, agricultural college and common school funds, and then to the support of the common schools. Nebraska makes an annual levy and assessment not exceeding one and a half mills on each dollar's valuation on the grand list of taxable property. The California system of school finance will be mentioned under distribution. These are a few of the States; still others will be dealt with in connection with distribution.

*Basis of School Taxation.* — The basis of school taxation, or the ultimate sources of school supply, is an important subject. Whether more money can be had for the schools, often depends upon the manner in which it is proposed to levy the tax. In general, taxation for schools will conform more or less closely to the character of the State taxing system as a whole. While admitting the great importance of the subject, the subcommittee does not feel called upon to discuss it, beyond offering brief remarks on two or three points.

Pennsylvania meets her annual State school appropriation, in whole or part, by laying a tax of four mills on the dollar on all moneys loaned by citizens of the State. Some States levy poll taxes and some "occupation" taxes for their schools. Quite miscellaneous sources of school revenue are met with in the State constitutions and laws. We find specific taxes on dogs, and on banks, railroads and other corporations. Escheats and forfeitures are often, or commonly, devoted to the schools. The constitution of Nebraska prescribes that all fines, penalties and licenses arising under the general laws of the State shall belong, and be paid over, to the counties where such fines, etc., may be levied or imposed; also that all fines, penalties and licenses arising under the rules, by-laws or ordinances of cities, villages, towns, precincts or other municipal divisions, less than a county, shall be paid over to the same respectively, and, further, that all these moneys shall be appropriated exclusively

to the use and support of common schools in the respective divisions where the same may accrue. Nor is Nebraska peculiar in so dedicating such funds. It has been suggested to the subcommittee that an inheritance tax would prove a popular, as well as an abundant, source of school supply.

#### DISTRIBUTION.

*Importance of Wise Distribution.* — The subject of distribution is only less important than that of income. It is easy so to distribute school funds as, first, either to defeat, in whole or part, the very end sought in taxing the larger units for the benefit of the small ones; or, secondly, materially to weaken local enterprise and liberality, or wholly to destroy it. The subject will be considered under both these aspects.

1. *Division of School Burdens between Large Units and Small.* — The assistance that the large political and social units render to the small ones, as the State to counties, townships and districts, or the county to townships and districts, or the township to districts, should be made contingent, in part at least, upon what the small units do for themselves. No community, it is believed, is so poor that it cannot do something towards educating its youth. Again, a State educational system should be so organized and administered as to stimulate, and not repress, local spirit and effort. It is a great mistake to remove the burdens of public education so far from the people that they forget, or tend to forget, their existence. The principle here involved is a vital one. History shows conclusively that popular education has flourished most in those States of our Union where government is most democratic.

It is difficult, or rather impossible, to lay down a general rule that shall govern the division of taxation between the State and the local communities. Two things are to be considered. One is the political institutions that exist in the State. If government is largely centralized at State capitals and county seats, *that* is one thing; if it is largely decentralized, as where the principle of local self-government is fully developed, *that* is quite another. For example, it would be idle to expect that the same results would obtain in the southern States that are found in New England, or even in that great group of States where the mixed system of local government

prevails. The governmental machinery and the traditions of the people *will* assert themselves in such matters. The other factors to be considered are social, and particularly economical conditions. As remarked early in this report, where wealth is abundant and its distribution general and somewhat equal in different communities, school burdens may be thrown, and should be thrown, much more heavily upon localities than where the opposite conditions prevail. Density of population, relation of urban to rural population, average wealth per capita, ratio of wealth producing population to the population of legal school age, the expenditure for education per pupil and per capita, and the per cent. of school revenue derived from State taxes and local taxes in the different States, — are peculiarly interesting when studied together. North Carolina shows the largest per cent. of State school tax (that is, of the whole tax) of any State in the Union, while the average population per square mile and the average wealth per capita are also small. Maine surpasses all the other New England States in these particulars. The proportionally high ratio of State taxation in the south is due to the two facts stated, — political institutions and economical conditions. But there can be no manner of doubt that, as the cities of the south grow, towns multiply and concentrations of population increase in number and in the value of property, local school taxation will materially increase. Legislatures could hardly prevent it, if they should try, and it would be most unwise for them to try to do so.

2. *Support of the Rich and Strong brought to the Poor and Weak.* — Funds raised by the large taxing units should be distributed in such a manner as to bring the support of the rich and strong to the poor and weak. The only reason for taxing these units at all for general purposes is to secure this end. On no other principle can a State school tax, or even a county or township tax, be defended, unless, indeed, the county or township is a single school district. The practical question is, How shall such funds be distributed so as not to defeat the end in view? A historical account of the leading methods actually pursued will help on the inquiry.

*The Public Land States.* — The public land States may be divided into two classes. From the admission of Ohio to that

of Arkansas (1803-36) Congress gave to the congressional townships of such States, severally, 640 acres of land each for the perpetual use of schools, and vested the title in the State Legislatures. Accordingly in these States every township has its own independent permanent school fund,\* which is sometimes managed by local authorities and is sometimes in the keeping of the State. Generally speaking, the sum of the township funds makes the so called State school fund, so far as it is derived from public lands. If the township unit system prevails, the ultimate distribution of income has been made in advance; if the district system, then the township distributes to the districts. From the admission of Michigan to that of Utah (1837-95) Congress gave the common school lands to the States as units rather than to townships, which resulted in the establishment of consolidated State school funds. The annual income from these funds, so far as the subcommittee is informed, is uniformly distributed to the local school organizations on the basis of the youth of legal school age as enumerated every year. The ages vary, but the principle does not change. It should be added that since the admission of California, 1850, 1,280 acres of common school lands have been given to every congressional township.

*Apportionment according to Children of School Age.*—The rule of apportionment just explained is followed far more generally than any other. Thus Maine distributes her State funds, from whatever source derived, to the towns according to the number of children between the ages of four and twenty-one. Connecticut distributes the annual income of her permanent fund, and the proceeds of the tax of \$1.50 for every child between the ages of four and sixteen, according to the number of children between those ages. Pennsylvania apportions her State tax of \$5,500,000 annually, Ohio the proceeds of her one mill tax, Michigan so much of her specific tax as goes to schools, and Indiana and Kentucky the proceeds of their State school taxes, according to the same general rule.

*Other Rules of Apportionment.*—But other rules are followed. Vermont apportions her State tax to the towns, cities and unorganized districts according to the number of legal

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\* Ohio, and possibly other States, offer some minor exceptions.

schools maintained during the preceding school year. New Hampshire distributes her State funds to the towns according to the number of pupils returned as attending school not less than two weeks in the year. So much of the Massachusetts permanent fund as goes directly to the schools is apportioned to the towns of the State that have a property valuation of less than \$3,000,000, towns ranking above that line receiving nothing. Furthermore, the scale is so adjusted that the poorer the town the larger the amount that it receives. Towns whose valuation does not exceed \$500,000 receive \$300 each; those exceeding \$500,000 and not exceeding \$1,000,000 receive \$200; those exceeding \$1,000,000 and not exceeding \$2,000,000, \$100; and those above the last amount and not above \$3,000,000, \$50. Again, a portion of the State fund is divided among the towns that are eligible on the basis of the ratio that the town's school tax bears to the whole town tax; the larger the ratio, the more help it receives. Rhode Island distributes her annual State contribution of \$120,000 as follows: first, \$100 is assigned to every school, not exceeding fifteen in number, in a township; then the remainder is distributed to the towns proportionally to the number of children from five to fifteen years of age inclusive.

*Distribution in New York.*—The State school moneys of New York are apportioned in a complicated manner. The State superintendent first sets aside the annual salaries of the school commissioners (district superintendents). Next he sets apart to every city, incorporated village having a population of 5,000 and upwards, and every union free school district having a like population, which employ a competent superintendent of schools, \$800; and to cities having more than one member of assembly in the State Legislature, \$500 for each additional member, to be expended according to law for the support of the public schools. He then sets apart any money that may have been appropriated by the Legislature for library purposes, and \$6,000 for a contingent fund. Next he sets aside to the Indians on reservations, for their schools, a sum equal to their proportion of the State school money, on the basis of distribution established by law. These sums set aside, the remainder of the State moneys is divided into two equal parts. The superintendent now apportions to every district in



the State \$100 (called a “distributive portion” or “district quota”), provided it has maintained a school, taught by a single qualified teacher or succession of such teachers for the legal term of the preceding school year; and the same sum for every additional qualified teacher or succession of such teachers, not counting monitors. The school year is 160 days, not including holidays that occur during the time, or Saturdays. This apportionment made, the superintendent divides the remainder of the school moneys among the counties according to their respective population, as determined by the last preceding United States census, excluding Indians on reservations. But cities that have special school laws receive their due share separate and apart from the remainder of the counties in which they are situated.

*Distribution in New Jersey.* — The New Jersey State school tax, equal to \$5 for each child in the State between the ages of five and eighteen, is raised by the several counties according to their amounts of taxable property respectively, as shown by the tax rolls of the townships and wards of the counties. Ten per cent. of this tax, when it is paid into the treasury, is known as a *reserve fund*, and is apportioned among the counties by the State Board of Education “equitably and justly, according to their own discretion.” The 90 per cent. remaining is then divided among the counties in the proportion that they have contributed to the tax. When the State school moneys reach the counties, they, together with all other school funds in the custody of the county, are distributed to the townships and cities on the following basis: (1) \$200 for each teacher employed in the public schools for the full term for which the schools are maintained during the year next preceding (nine months); (2) the remainder according to the last published school census (children from five to eighteen years of age); *provided*, that no district shall receive less than \$275, and that districts with fifty-five children or more shall not receive less than \$375. If these funds are not sufficient to maintain a free school nine months in the year, then the inhabitants may raise by a district tax such additional amount as is needed for that purpose.

*Distribution in Minnesota.* — The local one mill tax levied by Minnesota is expended within the districts where it is raised.

It is, therefore, only a compulsory district tax, the same as in Michigan. The current school fund of the same State, which includes the income of the permanent fund, is distributed on the basis of the number of pupils who have attended school forty days or more in districts that have had school for five days or more during the year. In addition to the above apportionment, graded schools having not less than three departments, which come up to certain requirements, receive aid from the State to the amount of \$200 each. Besides there are eighty-five high schools that receive State aid to the amount of \$400 each. The grants to these graded schools and high schools are paid from permanent appropriations that are met by general taxation, and are apportioned by the State high school board, on evidence that the schools are complying with the requirements. Minnesota also gives the sum of \$500 annually to State high schools providing elementary normal instruction of a kind that satisfies the high school board. Wisconsin also has an approved high school list, one half the cost of maintaining these schools being paid from the State treasury. Moreover, Wisconsin pays \$250 each to certain approved high schools in which manual training is taught.

*Distribution in California.* — The California system of school finance is a unique system. The State superintendent apportions to the counties the State school fund according to their respective numbers of school census children (from five to seventeen, certain classes being excluded). Each county superintendent first ascertains the number of teachers every district in the county is entitled to on the basis of one teacher for every seventy school census children, or fraction thereof not less than twenty, as shown by the next preceding school census, and then the number to which the county is entitled, by adding these district numbers together. He then calculates the amount of money to be raised at the legal rate of \$500 a teacher. From this amount he deducts the quota of the State fund assigned to the county, and the remainder is the minimum amount of the county school fund to be raised by taxation for the ensuing year; *provided*, that the minimum of such fund shall not be less than \$6 for every census child. The county fund thus made up is then distributed to the districts in accordance with this rule, viz., \$500 for every teacher, except (1) that to

districts having less than twenty census children only \$400 is assigned, and (2) that to districts having more than seventy census children \$20 additional for every such child less than twenty in number shall be allowed. All school moneys remaining in the treasury after this apportionment has been made are then divided among the districts of the county in proportion to the average daily attendance upon each district during the preceding school year. District taxes may also be raised, subject to certain legal conditions.

The subcommittee does not feel called upon to deal with all the States, or even with all the peculiar modes of distributing school moneys. It believes that the enumeration of particulars now made is ample for the present purpose. Some remarks upon the leading rules or methods of distribution, are, however, called for.

1. *Distribution according to School Census Objectionable.* — Distribution according to the school census or enumeration is open to a serious objection, viz., it does not carry the money where it is most needed. For example, two districts lie side by side, one having twenty and the other forty youths of school age; the second district draws twice as much money as the other, but the cost of keeping up the two schools is practically the same. The same would be true of two township units, unless the schools were consolidated. The result is, that the district or township that needs the most help receives the least. The rule is simple and easily worked, but it tends partially to defeat the end of State or county aid.

2. *Distribution according to School Enrolment or Attendance Objectionable.* — The same objection holds against rules based on the school enrolment or on attendance, only with somewhat diminished force. Again, if the enrolment is followed, or attendance for a brief time, there is danger that some children will go to school long enough to be counted, and then drop out. Besides, such rules of distribution work in favor of the graded schools and against the rural schools, on account of their larger enrolment and more regular attendance.

3. *An Equitable Method of Distribution.* — Taking everything into account, the subcommittee is inclined to think that a fixed sum or sums, based on an arbitrary unit or units, is most equitable. Examples of such rules are furnished by the

States of Massachusetts, Rhode Island, New York, New Jersey and California. The most serious objection to such rules is that they are necessarily complicated; some of those given above are quite complicated. Then, if the fixed sum is so much a teacher, as in New York, or so much a district, as in Rhode Island and New Jersey, there is a temptation to the undue multiplication of schools or teachers. But this point can be safeguarded by fixing statutory limitations, as in California. No rule can be devised that will not be open to objection. The subcommittee does not believe it possible to invent any rule of distribution that will well accomplish the purpose of taxing large units for the benefit of small ones, unless it rests on the school or the teacher as a unit, with the necessary qualifications. The Massachusetts rule is open to the objection that the school needs of towns cannot always be measured by low valuations of property assessed for taxation, as the number of pupils to be educated is also a factor. If the method of distribution now recommended is objected to as an exclusive one, then it may be supplemented by basing a part of the appropriation on the school census, enrolment or attendance. The resort to the United States census is most objectionable, as great changes of population occur in the course of ten years.

*Difference in the Working of Two Methods.* — The difference in the working of the school census method and the fixed sum method of distribution is well shown by comparing the statistics of two States. For the fiscal year ending Nov. 15, 1895, the mill tax of Ohio produced \$1,720,922. Of the eighty-eight counties, forty paid more into the fund than they received from it, while forty-eight paid less than they received. Some of the major counties of the State received more from the fund than they paid into it, while minor counties paid more than they received. For the year 1896 the city of Cleveland actually received \$2,616.67 more from the State than it paid to the State. Assuredly, a rule that makes the agricultural counties of Ohio, or many of them, contribute to the education of Cleveland, the most populous city in the State, is a travesty of common sense. But the same year Cincinnati paid in round numbers \$70,000 more than it received. This is hardly better than repealing the mill tax outright, and letting the burden of education fall

directly upon the cities and townships. On the other hand, the State of New York, in 1896, paid a total general school tax of \$4,062,903, of which \$3,500,000 was immediately distributed to the counties again. Fifty-four of the sixty counties received more from this tax than they contributed to it; only six counties paid more than they received. Erie county paid \$241,597 and received \$185,460, while the corresponding figures for Kings and New York counties were \$503,603 and \$387,879, and \$1,884,584 and \$636,133, respectively. The New York rule *does* bring the strong to the help of the weak.

*Separate Funds for Separate Purposes.* — A question arises in respect to separate funds for buildings, the payment of teachers and incidental expenses. In the opinion of the sub-committee, such division is desirable. The need of providing new buildings is often made an excuse by boards of education for keeping down the salaries of teachers. The triple fund would not indeed prevent such injustice, which makes teachers as such contribute to buildings, but it would *tend* in that direction. It is often stipulated in school laws that State funds apportioned to communities shall be wholly applied to the payment of teachers. This is a wholesome regulation. The cost of grounds, buildings and incidental expenses should be met by local taxes or other local funds. Touching the division of the cost of public education, State Superintendent Stetson of Maine, in a private communication, thus defines the prospective policy of that State: "Local communities shall provide school lots and school buildings, and keep the same in repair. Two-thirds of the money raised for maintaining schools shall come from the State, and one third from the local communities. The apportionment of the money to the several municipalities shall be upon the basis of average attendance. We shall also try to get a law prohibiting towns from receiving State aid, if they maintain schools having less than a certain average attendance." Such a law as this would serve to prevent the undue multiplication of districts, and would even work a certain measure of consolidation.

*High School Systems.* — The Nebraska law contains one excellent feature that is worthy of mention. All public high schools in the State that, as determined by the State Department of Education, have a proper equipment of teachers,

appliances and course of study, are open to attendance by any person of school age residing outside the district who is a resident of the State, and whose education cannot be profitably carried on in the public school of the district of his residence. Such pupil must have a certificate signed by the county superintendent that he has completed the common school course prescribed by the State department for work below the high school. He must attend at the high school nearest to his residence, or at a high school of approved grade in the county of his residence. Any school board that furnishes high school instruction to such pupil is authorized to charge fifty cents a week for the time that he has been in attendance, and it is made the duty of the county board to pay all such bills out of the county school fund. Massachusetts and Ohio, and perhaps other States also, provide for educating qualified pupils in high schools in other places than those where they reside, provided there are no home schools for them to attend, and this without cost to themselves. Massachusetts is the only State that makes the provision of high schools compulsory under any circumstances. High school tuition is wholly free to every qualified pupil in the State.

#### ORGANIZATION.

*The School District System.* — The town unit school system was the ancient system of New England. The classic school law enacted by the General Court of Massachusetts in 1648 ordered that the towns should found schools on their reaching a certain number of householders, the teachers to be paid either by the parents of such children as resorted to them for instruction or by the inhabitants in general by way of supply, as those who ordered the prudentials of the town should appoint. The word "township" is also used in the law. Connecticut followed the example of Massachusetts. The original New England town, which was a small concentration of population, was well adapted to this system. But "as the population of each little nucleus of settlement spread itself out from the centre of the original 'plantation,' it early became convenient, in Massachusetts and Connecticut at least, to allow neighboring families at a distance from the local concentration, or nucleus, to form themselves into a school district." The original church parishes

were divided in the same way. If these districts had been founded merely for the purpose of school supply, or to regulate attendance, there would have been, under the conditions existing, no objection to their formation, but the contrary. Unfortunately, however, these new districts also became units of school maintenance, bodies corporate and politic. These districts appear at first to have existed by sufferance merely; but the celebrated school law of 1789 legalized them, thus paving the way for the general introduction of the new system. Horace Mann declared, in his tenth annual report: "I consider the law of 1789 . . . authorizing towns to divide themselves into districts the most unfortunate law on the subject of common schools ever enacted in the State." Still, this "act was not repealed until manufacturing had restored those concentrations of population which in the early colonies had invited township control of school affairs." This was finally done.

The district system was at one time universal, and it exists in some form in a great majority of the States to-day. In Maine, New Hampshire, Massachusetts and New Jersey it has been wholly swept away. In Connecticut and Rhode Island the town system is permissive, and exists side by side with the district system. The township system exists in Pennsylvania, Ohio and Indiana. It is permissive in the upper peninsula of Michigan, in Wisconsin and in Minnesota, and doubtless in other States. It varies somewhat in the organization of the local authority. The Massachusetts school committee consists of three members or a multiple of three, elected from the town at large. In New Jersey the board consists of three, five or nine members, as the town may elect. The Ohio board consists of delegates or representatives elected by the sub-districts, one each. A single trustee elected by the people manages the schools of a township in Indiana, except that he is assisted by a director in each attendance district, who looks after incidental local matters.

Considering the great superiority of the township system over the district system, it is not a little strange that its introduction in the room of its competitor should have been so steadily resisted as it has been. This opposition is due in part to the power of conservative habit, in part to the belief that the district system is more democratic, and in part to the

popular fondness for office holding, — all conjoined with much misconception and ignorance in respect to the merits of the two systems. It has also been urged in favor of the district, by politicians, that it is the best unit for canvassing the States for political purposes. Certainly it cannot be objected to the township system, in its pure form, that it is not sufficiently democratic. In 1875 there were 15,087 teachers employed in teaching the common schools of Ohio, and there were in the State at the same time more than 35,000 school directors and members of boards of education charged with the administration of the schools. This, assuredly, is an excess of democracy.

*The County System.* — In the south, and in those western States that have the county system of local government, the only practical alternative to the district system of school organization is a county system. It must be remembered that in these States the town or township does not exist. Fortunately, such a system is not altogether unknown. In a few counties of Georgia it has been in successful operation for a number of years. These are the principal features of the system as it exists in Richmond County, in which the city of Augusta is situated: —

The county is the unit area of organization, and the rural parts and the urban parts of the county district, as far as practicable, are treated just alike. A board of education, composed of representatives elected by the people of the county for the term of three years, one third retiring each year, manages all the schools. The school tax is levied at a uniform rate upon all the property of the county, without revision by any other authority and without any limit as to rate or amount. The county and State funds are distributed to the schools according to the number of children to be educated. There is no district tax. The same qualifications are required for country and for city teachers. The teachers are treated as nearly alike as the conditions admit, and they are paid about the same salaries. The schools are in session the same length of time in a year, — nine calendar months. The country schoolhouses, on the average, are situated four miles apart, and no child is out of walking distance to a school open nine months in the year, and taught by a good teacher. One superintendent has charge of all the schools. Augusta has nine tenths of the taxable property of



the county, but only three fourths of the school population. In other words, the rural parts of the county pay one tenth of the school tax and receive the benefit of one fourth of it. For the most part, these are excellent provisions. The county would seem to be the natural area unit for popular schools under the county system of local government. The subcommittee confidently believes that this mode of school organization has a great future before it in the United States.

*Consolidation of Schools.*—In those parts of the country where existing physical and social conditions render it practicable there should be such a consolidation of rural schools as will diminish the existing number of schools, schoolhouses and teachers, and bring together, at advantageous points, the pupils who are now divided and scattered among the isolated schools of the township or other similar district. This step should be taken in the interest of good education, as well as of public economy. To make this reform possible, the children, as far as may be necessary or practicable, must be conveyed to and from the schoolhouses at public expense.

How absolutely fatal to good schools the existing conditions are in many parts of the country, statistics show most conclusively. State Superintendent Wells of Wisconsin reported in 1894 that his State had 183 districts whose average attendance the previous year was not more than five each, that 858 others were not above ten each, while 2,481 more did not exceed twenty each. "In other words," he said, "3,522 country districts, about three fifths of the total number, have an average attendance not exceeding twenty, and about two fifths above that average, with the great majority near the lower margin." Mr. H. R. Gass of Michigan citing the State report for his authority, states in a published paper that in 1886 the country schools of Calhoun County in that State required 158 teachers, and that they employed 342 different ones in the course of the year. The average length of the school in the district was 8.4 months, while the average term for which the teachers were employed was but 3.8 months. He cites a second county that presents like statistics, and then observes: "The ratio of the number [of teachers] required to the number employed is about the same as this throughout the State, the tenure being longer in the newer than in the older counties."

This state of things Mr. Gass attributes to the prevalence of the district system. He refers to Massachusetts and Indiana, where changes of teachers are much less frequent and teachers' tenures much longer than in Michigan. While two teachers on an average were employed in Michigan for a school every year, but few schools in the other States employed more than one. In the same State, at the present time, there are over 1,000 districts that enumerate less than twenty-five children of school age each, while seventy counties contain 468 districts that enumerate less than fifteen each. The statistics at hand do not show the actual size of the schools. Nor are the small schools found in the newer and poorer parts of the State only; the oldest and richest counties have their fair share of them. In fact, the newer parts of a State often have the largest and best schools. Not only so, the oldest and most densely populated States frequently make a very poor showing. In 1894-95 there were 7,529 school districts in New York, in each of which the average attendance upon school during the year varied from one to twenty pupils, while the average daily attendance in each of 2,983 districts was less than ten pupils. In 1893 Vermont had 153 schools of six pupils or less each. In 1892 State Superintendent Luce of Maine reported that the average enrolment in the schools of that State for the previous year was less than twenty-five pupils to a school, and that the number of districts having less than twenty-five was larger than the number having more. He declared that there were probably between 1,000 and 1,200 existing schools in the State whose enrolment was twelve or less, and that 600 or 800 schools then existing could be abolished without detriment. Twenty-five years ago a large number of schools on the Western Reserve, Ohio, long famed for schools, had dwindled to the most insignificant size.

But it is needless to multiply statistics, or to insist at length that thousands of rural schools furnish their pupils with a miserable preparation for the duties of life. When we consider the various elements that enter into good education, and especially training for social activities, it is not too much to say that a very small school is almost necessarily a very poor school. The facts are notorious. Hitherto it has been supposed that, although the cities and towns surpassed the rural districts in higher education, the rural districts contained a

smaller proportion of illiterate persons. This has been the prevailing view in the northern States, and probably it was once in accord with the facts. The cities have been considered the great hives of illiteracy. But there is now grave reason to question whether the fact is not often the other way. Certainly it is so in the only State where, so far as the subcommittee is informed, the subject has been statistically investigated. But, however this may be, a remedy for the unsatisfactory state of the rural schools is one of the pressing needs of the day. What can be done? One thing that can be done is to consolidate many of the small schools by carrying back and forth such pupils as need to be carried, and thus, by one stroke, create several of the conditions of good schools. The interest that this subject is beginning to awaken is one of the hopeful signs of the times.

*The Example of Massachusetts.* — It was Massachusetts that led the way in developing the district system, and it is Massachusetts that is leading the way in consolidation. An act that dates from 1869 authorizes any town in the Commonwealth to raise money by taxation to enable the school committee, in its discretion, to provide for the conveyance of pupils to and from the public schools at public cost. The towns were already empowered to build schoolhouses wherever they were really needed. Availing themselves of these powers, many towns have entered upon the work of consolidating their schools.

*Extension of the Consolidation Movement.* — The movement has extended beyond Massachusetts, and reached every one of the New England States. In these States many hundreds of schools have been consolidated, and with the most gratifying results. Occasionally an unsuccessful experiment is reported, but the great stream of testimony runs strongly the other way. Longer school terms, better teachers, better grading, better instruction, more interest in the pupils, greater physical comfort on the part of the children, better supervision, — these are the claims that are made for the new departure. Other things being equal, the new way is never more expensive than the old one, and often it is less expensive.

The movement has spread beyond New England. In 1894 a law was enacted in New Jersey, providing for the transportation of pupils at public expense, in order that rural schools

might be consolidated with city ones. A most interesting experiment in consolidation is being tried in north-eastern Ohio, where some schools had already died out, and many more were lingering on the verge of death. Permissive legislation has been obtained in several counties, and already many townships are working the plan successfully, while many others are looking on expectantly, and are apparently on the point of making the new departure. The newspapers are quick to note the innovation, and it is already attracting attention beyond the borders of the State.

*Advantages of Consolidation.* — The distinct pedagogical advantages of consolidation are much more fully set forth in the reports on supply of teachers and instruction and discipline than here. In this report the topic is dealt with mainly as it is related to organization and administration. The fact is, however, the several aspects of consolidation are inseparably connected. As a rule, whatever promotes simplicity and ease of administration promotes good instruction, and *vice versa*. No one of the subcommittees that handle the subject for a moment supposes that there is any charm in the word “consolidation” to cast all the evil spirits out of the rural school, but they all believe, after giving the subject mature consideration, that great possibilities of improvement lie in that direction. It is perfectly true that the consolidation remedy cannot be universally applied, because physical and social conditions often forbid. The fact is, that a large proportion of the children of the land will be schooled in little schools, — rural schools, ungraded schools, — or they will not be schooled at all. Suggestions looking to the improvement of these schools will be found in the reports of all the subcommittees; but insistence is here placed upon the fact that the consolidation remedy can be applied on a grand scale, with the largest promise of success. In most States some new legislation will be necessary to that end, but not in all. Wherever the township unit system exists, the first step, and the long step, has already been taken. In such States it should not be difficult to secure the needed legislation in relation to transportation. State Superintendent Emery of Wisconsin has already notified the people of his State that the laws contain all the provisions that are necessary to

enable them to move at once in the direction of school consolidation.

It is important that the consolidation reform shall not be misunderstood. It does not necessarily mean that there shall be only one school in a town or township. It does not mean, either, that parts of different townships or counties shall not be comprised in one school. These questions are merely matters of detail, and their adjustment will depend upon such factors as the size of townships, the distribution of villages or other local centres, the direction and condition of roads, streams and bridges, the distribution of population, and the physical configuration of the township and the adjacent parts of the country.

It is noteworthy how the different phases of educational reform all tend to hold together. In the northern States the cause of school consolidation depends intimately upon the adoption of the township unit system. A certain amount of consolidation can be effected by the abolition of small districts; it may be possible, also, for several independent districts to merge their schools into one, for the time at least, and still preserve their independence; but it is manifest that the first plan will not prove effectual, and that the second one will be infrequent and precarious. The subcommittee believes confidently, therefore, that the fortune of effectual consolidation is closely bound up with the fortune of the township unit system.

It is also noteworthy, let it be remarked again, how different social elements tend to attract one another and so to coalesce. School consolidation, especially its practicability, turns largely upon means of cheap, safe and easy communication throughout the school area. Here we touch a question intimately relating to social progress that has been receiving increasing attention the last few years. Reference is made to the improvement of roads. Those who have been promoting this movement have not probably regarded it as a measure of educational reform, but such it is. Perhaps there is no rural interest of a social nature that would be more decidedly enhanced by good roads than the educational interest. The people of some of the towns of Ohio, where the new plan is being tried, claim this as a decided advantage, that the drivers of the omnibuses serve as

carriers for the mails between the farm houses and the post offices, thus promoting the diffusion of intelligence in still another way.

*Lengthening of the School Year.* — Only a single point remains to be pressed, but it must be pressed strongly. This is the necessity of lengthening materially the time that the country schools, on the average, are in session each year, and the securing of a more regular attendance of the pupils. The legal years now vary widely in different States, and the practical, or real, years still more widely. Some communities always surpass the legal minimum of time, others as regularly fall below it. In the thickly settled States of the east the rural schools are in session eight, nine or ten months in the year; but often in the south, and sometimes in the west, one half the shortest of these terms is not reached. The legal year is frequently absurdly short. Until two years ago the Michigan year was but three months, and now it is but five months. It is quite necessary to argue that short schools are, even relatively, poor schools. In order to have a good school, it is necessary not only to bring pupils together in considerable numbers, but also to hold them to the work a certain number of hours each day, and a certain number of days each year. There must be a concentration of effort as of pupils. It is as wasteful a method of education to send children to school seventy or eighty days in the year as it is to send them two or three hours in the day. Persons interested in popular education, and particularly in rural education, should not rest, therefore, in their efforts until they have made the legal school year in every State at least 160 or 180 days.

*Enforcement of the School Laws.* — But it will not be enough for the State simply to fix a minimum school year, it must see to the enforcement of the law. The law should hold communities to a rigid accountability in respect to maintaining schools of legal grade for the full legal period, to employing none but certificated teachers, and making all the required reports to the State educational department. Most school laws contain such provisions as these, but it is feared that they are not always enforced. The only practicable mode of enforcement is absolutely to withhold from the local organizations all aid from the superior taxing units, as the State, until they first observe the law.

And, again, it will not suffice for the State to see that the prescribed quality of instruction is actually furnished. It might, perhaps, be thought that, if the State only provided local schools, and made them free, the people would be only too glad to avail themselves of them to the full ; but sad experience shows that this is not always the case. The indifference, ignorance and selfishness of some parents come between their children and the schools. In communities where the school attendance is compulsory some parents are in an almost constant battle with the authorities, to keep their children out of the school as much as possible. It is possible that such extreme indifference or selfishness as this is more common in cities than in the country ; and yet it is true, as a rule, that the country child's labor, especially the farm boy's labor, has a greater money value than the city child's labor, and that the farmer is, therefore, under a special temptation to keep his boys out of school. On the whole, there is quite as much need of an efficient compulsory attendance law in the country as in the city, and perhaps more.

*Wasteful Expenditure of School Moneys.* — The subcommittee has not taken space to discuss, in general, the common education that the American States are now furnishing the American people. That is a large subject, and for the most part lies outside the field of the present inquiry. It will suffice to say on this large question that the people had better pay what they do pay for what they get than to go without it, or even twice, thrice or four times the sum ; but, at the same time, they might receive, and should receive, a great deal more for their money than at present. This is particularly true of the rural schools. No doubt there are many excellent schools in the country ; but, on the whole, it may well be doubted whether any money that is expended in the people's interest is expended more wastefully than what goes to the country schools. No doubt the country school has points of advantage over the city school, as the freer communion with nature, but on the whole it is inferior. The typical " little red schoolhouse," so invested with sentiment, is a costly and unsatisfactory institution of education. Owing to social changes, in many parts of the country it is much less efficient and useful, at least relatively, than once it was, and a new organization is imperatively called for.

Something should be done to stop the wasteful expenditure of the public money. State Superintendent Stetson, speaking for his State, puts the case thus in a communication to the subcommittee:—

“I have devoted quite a number of pages in my report [1895] to showing the people of Maine that we are wasting an enormous sum of money in this State because of the unbusinesslike methods which are used in the expenditure of its school funds. This waste is made in every direction in which money is spent. We pay more than we need to for school lots, the erection of school buildings, the furnishing of school appliances, text-books, fuel, making repairs, etc. The waste along these lines aggregates more than one third of a million dollars each year. I have shown in the report that the money which we spend for common schools is sufficient to maintain schools taught by professionally trained teachers and superintended by competent superintendents; that, in addition to doing these two important things, we would have money enough left to supply them with the appliances necessary for a successful school, and also furnish the needed apparatus, library books, and make all the needed repairs and additions. I feel that I have demonstrated this point so that there will be no further question about it in the State of Maine. The whole matter turns upon the simple point that we are alarmingly wasteful in our expenditure of school money.”

#### SUMMARY.

*The Central Postulate.* — The subcommittee deems it advisable, now that the whole ground has been covered, to restate the fundamental propositions that have been urged in this report. These all start from the one central postulate that a provision of funds sufficient for their adequate support is essential to the existence and life of good schools. The threefold division of the subject will be preserved in the summary.

#### *I. Revenue.*

1. The great resource of the public schools is, and must continue to be, some form or forms of public taxation.
2. Such areas or units of taxation should be created, or continued if already in existence, as will fully develop the sound



American principle that the whole wealth of the State shall be made available for educating all the youth of the State.

3. To accomplish this end, resort must be had to the larger units of taxation, especially where population is sparse and wealth meager. The following recommendations must be specifically urged: (1) a liberal provision of funds from the State treasury; (2) a county tax in at least all the county system States; (3) a town or township tax in the States where this civil division exists; (4) taxes in special districts, that is, in cities and villages. The school district, in the commonly accepted sense of that term, is not a desirable taxing unit, but quite the contrary, and should be abolished as such unit.

### *II. Distribution.*

1. Funds raised by the large political or social units for general school purposes should be distributed in such a way as to bring the rich and the strong to the help of the poor and the weak.

2. Such rules of distribution should be adopted as will accomplish this end. In order to do this, distribution must be based, to a certain extent at least, upon fixed or arbitrary units; that is, so much money must be given to the school or to the teacher.

3. The large taxing units should render assistance to the small ones only upon the condition that the small ones first do something for themselves.

### *III. Organization.*

1. In the States where the town or mixed system of local government exists, the town or township school system should, as far as practicable, be substituted for the district system; in the county system States the county school system is the natural alternative to the district system.

2. In those parts of the country where existing physical and social conditions render it practicable, there should be such a consolidation of rural schools as will diminish the existing number of schools, schoolhouses and teachers, and bring together, at advantageous points, the pupils who are now divided and scattered among the isolated schools of the township or other similar districts.

3. There is urgent need of lengthening materially the time that the country schools, on the average, are in session each year. The ideal should be a minimum school year in every State of at least 160 or 180 days.

EXTRACTS FROM THE REPORT OF THE SUBCOMMITTEE ON  
SUPERVISION.

*Supervision of Rural Schools.* — Professional supervision is to-day regarded as an essential factor in our school system. It has been observed that the schools that are closely supervised by men who thoroughly know their business at once respond to the influence of this supervision. Expert supervision has resulted in systematic, orderly and well directed instruction. It is a matter of remark that the most competent superintendents have the best schools, and that cities noted for their excellence in school work have attained this pre-eminence through the medium of intelligent supervision. This is also true of those counties which have come under the same influence.

The attention of the profession, however, has been mainly directed toward expert supervision in city schools, and but little heed has been paid to the demand for such work in rural districts. It is quite time that our inquiries should be directed toward the character of the supervision demanded by the country school. If supervision through a competent superintendent is a good thing for city schools, there is every reason why it would be a good thing for rural schools.

*The Proper District for Supervision.* — Thirty-eight States, mainly in the south and west, have county superintendents, whose duty it is to visit the schools and exercise the duties usually belonging to their office. The New England States generally have what is known as township or district supervision, which arises in large part from their political organization. In New England the town is the dominant political unit, while in the south and west it is the county. The simplicity and effectiveness of supervision is promoted when the units of political organization and of school administration are identical. This condition has its limitations, however, in the amount of territory to be covered and in the density of population, which is a varying quantity. The main point is to bring every rural

school of the country as far as possible under the watchful care of a competent supervising officer. Responsibility is a strong stimulant. It is one of the weak points in our present system that too often the rural school teacher is responsible to no one.

In regard to the operation of the two principal methods of supervision, there is no reason why any section should abandon the practice which has been found best adapted to its peculiar conditions. It must be conceded, however, that a single township, containing on an average ten or twelve schools, is too small a territory to engage profitably the entire attention of one person. In such a case one of two things must necessarily happen, — either the schools are supervised to the point of interference, or the supervision becomes uncertain, feeble and unsatisfactory. In a general way, the rural township is too small a supervisory unit. Wherever it has been tried, the supervisor has generally had some other business to attend to, and thus his work has been found wanting in those results which are most desirable. In order that the work of overseeing and directing may be effective, it must engage the entire time and the best thought of the supervisory officer.

A proper remedy for this is the combination of towns for supervisory purposes. Three, four, or five towns could be united in one supervisory district, until a sufficient number of schools have been secured to engage the entire attention of one good man. The burden of his salary could be borne by these towns in the proportion of the number of schools they contribute to his work. This plan is in operation in Massachusetts, and has been satisfactory.

What has been said regarding the combination of towns for supervisory purposes can be repeated with equal emphasis as to other small divisions of territory termed "school districts." The same principle applies here as elsewhere, — that the interests of the schools included in a given territory should be sufficient to warrant the employment of a thoroughly competent person, at such a salary as would justify devoting his entire time to his work.

*Valuable Features of Certain County Systems.* — Since this report is a symposium of suggestions for supervising rural schools, it may not be amiss to discuss a plan of supervisory organization that has found favor in some few counties that

contain large cities as well as a rural population. We mention it here because it has valuable features for supervising the rural schools. There is but one school board for the entire county. One set of men legislates for the whole area, and it is their duty to relate the urban and suburban and rural schools into a sympathetic system. This is based upon the idea that every city is bound to respect the people that immediately environ it. It is to the interest of a large city to have good roads leading to it, good crops in the fields around it, and good schools to which the farmers may send their children.

With this as a foundation principle, there is but one school fund for the entire county, raised by taxation upon all property in the county, whether it be in or out of the city. This makes the general school fund, which is distributed upon the basis of school population and according to the needs of the city wards and the rural communities. The same qualification for teachers is required, whether they teach in a city graded school or in a country ungraded school; and the same salary is paid to them and in the same way, and for just as long a term. In this system one superintendent is in charge of the whole area. He looks after a city graded school one day, and the next day may be twenty miles away, inspecting a country school. Expert supervision by a superintendent and his assistants is thus extended into the rural districts, and both city and country school receive the benefit of what there may be in each that is of real value.

Upon this plan, as a matter of course, a large portion of the school fund raised by taxation on city property is annually distributed to the country schools. The city is really made to assist in supporting the rural schools around it. And who shall say it is not a good thing for the city to do, especially in agricultural sections, in which the education, liberal and special, of the farmer's child is the probable salvation of the farming interests of the country? We should not lose sight of the truth that the farmer's child is to be made a useful citizen, not only content to stay in the home in which he was born and reared, if that is best, but fitted to fill honorably any station in life to which he may be called. To do this he must have all the opportunities of education and culture that the city affords. This can be brought about in no other way than at the city's

expense, for wealth is massed in our populous centres. The expert supervision, the well trained teacher, the long term, the modern text-book, the good schoolhouse, can be placed at the farmer's door by the agencies of the neighboring city, that owes him this and much more.

*Supervision needed by Rural School Teachers.* — Supervision is one of the vital needs of the rural schools, since most of their teachers are inexperienced. The number of normal school graduates in rural schools is lamentably small. The reason is that the normal school graduate can obtain a better salary by teaching in a larger field. The demand for this class of teachers make their salaries so high that the country schools cannot afford to employ them. As soon as teachers become proficient by reason of experience acquired in rural schools, the probabilities are that they will be induced to seek better positions in cities, where their experience and abilities will command higher salaries.

Add to this the other fact that many young men begin to teach as a stepping-stone to some other profession, and while they are teaching a country school are studying law or medicine, and their hearts are with that rather than with teaching; and also add that many young girls teach until they marry, or as long as they are compelled to teach, and no longer, that they have no real love for their work and no wish to stay in it, and we see how the problems multiply.

Rural schools suffer from lack of trained teachers. In them, as a general thing, are young graduates from the village high school, or some favorite among neighborhood families, or a type of ancient teacher whose placid life is not disturbed by the vexing problems of his profession. This raw material must be developed, made shapely, orderly and systematic, if time is to be saved to the children, and schools properly supported. A bright and live supervisor will bring order out of confusion, harmony out of discord, and will give life and beauty to that which before was inert and ungainly.

Teaching is a great art, based on a profound science. The supervisor is the expert who has given this art and science his careful attention, and whose business it is both to know how to teach, and to show others the way of teaching. He can in some measure compensate for the lack of skilled work in the

school by closely supervising and guiding inexperienced teachers and showing them what to do. An expert is one who possesses skill gained by practice. A supervisor who claims to be an expert should have experimental knowledge of "the how to teach." He is supposed to have given careful attention to those things which characterize a good school. Not only must he know how to teach, but he must know how to instruct others in the art and science of teaching. He must be a skilled teacher of teachers. Without this directing spirit, schools must necessarily suffer until teachers happen upon some better way. It is a great misfortune for schools to wait for wisdom in teaching until the many mistakes of teachers have pointed out better methods. The presence of skilled supervision has been the salvation of many schools.

It is one province of supervision in the country school to bring teachers into contact with each other, to illustrate better ways of teaching, to break up the isolation and monotony of rural school life, and to take to the doors and homes of people and teachers alike the life and freshness which have been the result of research and study on the part of the best minds in the profession. The province of supervision in rural schools falls far short of its legitimate purposes when it begins and ends in the schoolroom.

This point is not sufficiently well appreciated by those who have the oversight and care of schools scattered over a large tract of territory. Country schools have an environment of their own which should neither be forgotten nor ignored. The best supervisory work is that which brings into the rural school everything in farm and rural life which is strong and pure and wholesome. It is possible for the supervising officer so to exert his influence as to give grace and dignity to each individual school, and make it the rallying point for every good influence, a blessing to the entire community in which it is situated.

*Need of Trained Supervisors.* — We need everywhere trained superintendents of schools. "Supervision of schools should rank next in importance to the instruction in schools; indeed, so necessary to successful instruction is competent supervision, that the two should receive together the watchful oversight of the State" (New Jersey State Report, 1894). Supervisors

should know as much of teaching as the teachers under them, and should be able instinctively to distinguish good teachers by their manners, dress, speech, disposition and character. The best work of a supervisor is his skill in selecting teachers. Not by the results of examination alone, for some learned people make poor instructors; not by yielding to the pressure of family or political influence, for this will ruin any system of schools; not by selecting his own friends or favorites, for this is unworthy of his office; but by following the knowledge that comes to him through study, by long experience, by careful observation and by conscientious conviction, which enables him to know a teacher when he meets one, though he may not be able to tell why.

Teaching is a matter of both disposition and knowledge. The former cannot be examined, but it ought to be recognized; careful supervision will aid in developing it. Skill in doing this is an essential characteristic of a good supervising officer, especially in connection with rural schools. If the cry is raised (and it is) that there is not enough money to pay for professional supervision, the reply is that it would be wiser to have fewer teachers in order that those employed might be better qualified. A supervisor who is an expert can so arrange and organize the system that a less number of teachers can do the work and do it better, because each one is thoroughly competent. "A good superintendent earns many times his salary; a poor superintendent is too dear at any price. The work of supervision may be unsatisfactory either because the number of schools is too large for the oversight of one person, or because the supervising officer lacks the talent for moulding, inspiring and directing the work of others" (Pennsylvania State Report, 1895). Underpaid supervision is often unskilled and inefficient, and against this we raise our decided protest. Such supervision is of no value whatever to the schools, — a penny-wise policy that economizes in the wrong place. A supervisor should have no other business than to care for the schools. He should not be a merchant, nor a lawyer, nor a farmer, nor an active teacher. His business should be to supervise the schools of his county, or township, or district, or whatever his area be called.

With a given sum of money for school purposes, to devote

a part of it to skilled supervision will bring more children under enrolment, better teachers in the community, better instruction in the schools and more satisfaction to the people, than if all the money were spent in paying the salaries of teachers.

In many sections of the country a supervisor not capable of suggesting to teachers better methods of teaching, and not able to detect false methods, pays only a perfunctory visit to the schools. He merely sees whether the building is clean, whether the children look bright and interesting, whether the enrolment is good, — such facts as would be noticed by any person of ordinary common sense. Too often the contact of the average supervisor and the teacher of the rural schools is nothing more than a mechanical business performance, with such elements of aid and encouragement as any intelligent visitor may give the school. Although this is not without advantage, it falls far below the standard of professional supervision.

Attention is also called to the power which the supervisor can exert through rightly conducted teachers' meetings, institutes, associations and round tables. Here he may meet the teachers under his direction, and make use of the information which he has gathered in visiting their schools. From free and open discussions by the teachers he will get an insight into their habits of thought and their methods of expression. Such meetings help break up the unsocial character of rural teachers by bringing them into contact, so that each learns something from the experience of all the others. In this way teachers and supervisors become better acquainted, gather fresh courage and new inspiration, and go home feeling that they have much in common, and that, if they will, they can in many ways be mutually helpful. The most deadening influence about the country school is its isolation. Nothing is more potent in overcoming this than frequent gatherings in which teachers, school officers and parents freely discuss matters of common interest. To encourage such meetings is one of the duties incumbent upon the supervisor. Without being too prominent, he may still be the inspiring spirit, guiding, directing and stimulating the tone and energies of all who participate in the proceedings.

*Qualifications of Supervisors.* — The necessity of establishing



some qualifications to be required of those who are to occupy the position of supervising officer is emphatically insisted upon.

“ If it is desirable to insist upon a certain degree of qualification for a school teacher in the humblest district of the State (this proposition has passed beyond the realm of discussion), it would seem that there is no question that the superior officer clothed by statute with such extended powers as a school commissioner ought to be a person possessing some fixed qualification for the performance of the duties of his office. The schools of the State will never reach that degree of efficiency which the State has a right to demand, and which is expected from the generous provision made for their support by the people, until this evil is corrected. Some standard of qualification should be insisted upon, and the power of removal in case of the election of a person not possessing these qualifications should be vested in the State superintendent ” (New York State Report, 1895).

*Requirements of Certain States.* — In only seventeen States are there any qualifications, beyond that of being a resident and a voter. In some States a first-grade license is required, in others a normal or university course, and again in others he must be an experienced teacher. In a majority of the States, however, the electors are allowed to choose any person without regard to educational qualifications.

*Education of the Supervisor.* — It is unquestionably true that a supervisor should be as well and as highly educated as the better teachers he supervises. He should be a man of broad and generous culture, a lover of good books, versed in the best literature of the day, — one whose presence is an influence for good and whose words are an inspiration. To require him to be in every case a graduate of some higher school would be unreasonable, perhaps, but he should be a friend of higher education in every sense of the word. He must for a long time continue to be one from whom will come the influence which will lead the pupils in the rural district to strive for the highest education possible under the circumstances. His influence should be given to the establishment of rural or township high schools wherever the population will permit it. These schools should include in their courses whatever is required on the one hand for entrance to the school of the next higher grade, or, on

the other, those studies a knowledge of which can be made so to change life on the farm, in its various forms, that it will become more attractive and more profitable. In the establishment and conduct of such schools the influence of the supervisor should be a very prominent factor.

*The Supervisor's Knowledge of School Work.*—A supervisor should have a thorough knowledge of school work. He should know what a teacher ought to do in managing a class of pupils of any age on any subject. This is one of the things he is paid to know. He should be an expert to whom teachers may go for advice and direction. If the advice is good and the direction wise, teachers will have confidence in the administration of the schools, and rely more and more upon the supervisor. The system is thus reduced to uniformity and becomes a source of strength. The supervisor should be able to direct teachers in their professional reading, and select wisely a library of teachers' books, and place them where they are most needed. He should know about school periodicals, and be able to form his teachers into reading clubs and circles, and direct their studies. He should be able to arrange teachers' meetings so that time will not be wasted, and that teachers will come with pleasure and stay with profit. He ought to be able to aid in selecting a library suited to the wants and tastes of an agricultural community. In school extension he should be a leader, for he can thus make his influence felt in every part of his territory. In directing the home reading of the pupils and the people, he may, if he will, find an immense field of usefulness. He can thus create and foster an interest in the welfare of the farm and the home as adjuncts to the rural schools.

He can understand and sympathize with teachers better if he has an experimental knowledge of their work. No supervisor is so good as he who climbed from the lowest rounds, and knows all the steps. That this is indispensable, we are not prepared to state. There are some very excellent supervisors who have but little experience in teaching, but who have seen enough and studied enough to know how it ought to be done. Experience would have been helpful, however, in understanding the limitations of their work.

First and foremost, a supervisor should be able to instruct his teachers in the methods of organization and management of

schools. This is particularly the case in rural schools, where so few teachers have acquired skill in teaching. But instruction with a teacher is like instruction with a child. There must be an awakening, an arousing, a hungering after instruction. The conditions of "being filled" are that we must "hunger and thirst." The supervisor must inspire his teachers with a desire for better things. He should lead them to see that time is precious, and that the children in school this year may be on the farms next year and no more in school forever. They must know what to do, and do it. The supervisor should be a source of inspiration. His corps of teachers must be alive, and eager, and studious. The thing most to be abhorred in school work is the teacher dead to advancement in professional studies. The supervisor must rouse teachers to work out for themselves plans and methods for building up their schools, and must set forth the principles which should control them in their work.

The county superintendent, or the supervisor of schools in any rural community, should have had recent experience in the schools which he is to supervise. In cases where this is not possible, he should make a careful study of the peculiar surroundings of the schools of which he is to take charge. If the new departure which seems to be at hand in rural school education is to be a success, it must be carefully conducted in reference to those environments which are peculiar to each section. The supervisor who is to have a controlling influence in choice of text-books, in courses of study, in the selection and use of libraries, should be thoroughly conversant with the physical characteristics of his district, with the interests of the people, with their sources of wealth and living, and with the home life of the children. Whether it be a mining or a grazing region, whether agriculture or horticulture predominates as an interest, he should make himself at home in that domain of science or knowledge which will increase his usefulness as a school officer.

*Relation of the Supervisor to the Home.* — The parents of children need instruction as well the children themselves. The home influence and the school influence should be harmonious, or confusion and uncertainty will arise in the child's mind as to what he should do. The people must be reminded that the school is an integral part of the community, and not a separate affair which the law compels them to support, and which takes

their children away when their assistance on the farm is most valuable.

In establishing the true relations between the home and the school, between the necessities of physical and those of intellectual education, the supervisor of rural schools finds an unlimited field of usefulness. In rural districts parents are often ignorant of the advancement education has made since the days when they went to school, and they are often too ready to criticise anything new. The supervisor must gain their confidence, so that they will yield their ideas to his, and allow the teacher in their school to follow his directions without any hindrance from them.

The supervisor can exert a wonderful influence in bringing the fireside to the support of the teacher. To do this he must be able to educate the people concerning their relation to the school, as to sending the children regularly, as to providing necessary material, such as books, etc., as to allowing every teacher to pursue those methods of teaching which his skill and experience suggest as best suited to the wants of the school. At meetings of agricultural clubs, at town rallies, at educational "barbecues," at commencements, at spring festivals, at farmers' institutes, he should embrace every opportunity of saying a word for the schools, in order to arouse the people and interest them in the whole system of education. The columns of the country paper afford the supervisor a very ready means of reaching the people. Almost every farmer takes the county paper that comes weekly to his fireside, which gives the news of the outside world and the doings of his neighbors. School news is an important item, and should never be omitted. Every week the paper should contain something of educational interest from the pen of the supervisor, though not always over his signature, — suggestions for improvement, statistics of enrolment and attendance, new and better ways of teaching, plans for schoolhouse construction and decoration. The press is valuable to every teacher and helpful to the system of education by bringing farmers into sympathy with the great educational movements of the world. The press gives a larger audience, though it enforces a shorter address. But a little every week, full of variety and interest, will eventually build

up a healthy sentiment in the county, and educate parents as well as children.

*Relation of the Supervisor to the Selection of Teachers.* — The supervisor should have a direct or indirect control of the selection of teachers. The crisis in the history of schools is when teachers are to be chosen. No one is so well qualified to choose them wisely as a faithful supervisor, and no one is more likely to do so conscientiously, since he knows the value of efficient teachers. This control can be given him directly or indirectly. If he does not wish to have the direct choice in individual instances, the same may be accomplished by giving him the power to examine and license teachers for his supervisory district. No one, then, can be selected by the board of directors except such as are approved by him. He prepares an eligible list, to which the board is limited in making its choice. If the superintendent is conscientious and courageous in the preparation of this list, he can safely leave the responsibility of the individual appointments to the board.

In many cases the questions for such examination are prepared at the State office. In some instances the county board conducts the examinations, and in a few the answer papers are sent to the State office for final examination and approval or rejection.

The supervisor should be slow to condemn a teacher who is honestly striving to succeed; but if, after faithful and earnest effort, teachers clearly prove that school teaching is not their vocation, or, after repeated warnings, teachers will not try to do the right kind of work, it is clearly the duty of the supervisor to report the facts to the directors, and his report should be given great weight by them. The power to revoke the certificate is usually in the hands of the supervisory officer. It should be exercised with great caution and deliberation, but fearlessly whenever there is sufficient reason for it.

*Relation of the Supervisor to the Curriculum.* — Since the supervisor is responsible for school methods and for results in teaching, the arrangement of the course of study and the selecting of the text-books should be largely, if not entirely, left to his direction. It is his particular business to know books as well as to know teachers. It is not to be expected that the

men who constitute the ordinary "committee on text-books," and whose daily business has no relation whatever to school texts and their use, can decide what book is best for use in the schoolroom. It is very well to have a committee on text-books composed of the members of the board, to prevent possible abuse, but the advice of the supervisor should have much influence in determining the character of the books used in the schools.

*Relation of the Supervisor to the School Directors.* — It is important that the relations between the supervisor and the school officers should be clearly defined. The directors stand much nearer the people, and have an immediate interest in the welfare of the schools. They contract with the teachers, care for the financial affairs of the district, purchase supplies, and are charged with the general business management. The success of the school depends very largely upon the kind of men who are elected to that office. In the rural districts especially the duties of the director are mainly of a supervisory nature. He should inspect frequently the schoolhouse and school premises; he should see to it that everything is provided which is necessary for the comfort and convenience of both teacher and pupils, that the outbuildings are in a decent condition, and that the supplies are used with due regard to a wise economy. In the discipline of the school he should give a strong moral support to the teacher, and his influence should at all times be on the side of order and obedience. The board of directors should make such rules and regulations for all the schools under its control as it deems necessary for the preservation of school property, for securing punctuality and regularity, and for the general welfare of all concerned, and it should support the teachers in their rigid enforcement. It should be in constant correspondence with the supervisor, so as to keep him informed respecting the progress of the school; and, in case a teacher is derelict in his duties, or if for any reason the school needs a special visitation, it should inform him at once. On the other hand, it should be the aim of the supervisor to establish the most cordial and intimate relations with the local directors. The supervisor should magnify the office of the director. Whenever he visits the school, he should, if possible, induce

the director to go with him. If at such visits they inspect the condition of the outbuildings and the premises, the supervisor can often propose plans for the improvement of the buildings which the director will more readily appreciate and approve.

The inspection of a school by a competent supervisor is an object lesson of importance to the director. He is able to see at what points the supervisor is aiming, and he learns something of his ideas and plans. He will thus be better able to counsel and advise the teacher in the frequent visits which he makes to the school, and make more intelligent and specific reports to the supervisor. The practice on the part of the supervisor of calling the directors together at stated times for mutual conference is very commendable. These officers are often ignorant of their duties, but in a large majority of cases they are willing and anxious to learn. There is no more effective way of improving the rural schools than that of instructing and informing the men who have them in their immediate charge.

*The Supervisor's Method in Visiting Schools.*—The supervisor's method of visiting schools may be considered briefly. First, he visits schools to see how and what the teachers teach, whether their manner is composed, their method clear and concise, their style interesting; whether they are teaching valuable facts, or wasting time on trifles; whether they are teaching what is right, or what is wrong. Second, he goes to find out what the pupils know. This is a test of the past work of teachers, which is shown by the general manner of recitation, the promptness with which pupils reply, the amount of information they have, the degree of skill they manifest or the power of original thinking they have developed. Third, he inspects the physical conditions of the school building and grounds. He should note the conditions of the outbuildings, and, if he finds them unsuitable in any respect, he should say so frankly to teachers and directors, and insist upon a change at once. The supervisor must know whether good light, good seats, proper temperature and ventilation and thorough drainage are secured. The supervisor should carefully observe the moral atmosphere which surrounds the school, whether it is on the side of order and obedience, of modesty, and of all those virtues which make

the character of the typical American citizen. All these are demanded in order that good teaching may be made possible, and good health and public morals may be preserved.

Such being the purpose of the visit, the supervisor should put himself in easy and cordial relations with the teacher and the pupils, that he may have a true understanding of what each can do. The teacher may conduct one or more recitations in the various subjects of study, in order that the supervisor may see the usual methods of instruction. The supervisor can then suggest improvements if needed, and can even take the class in hand and demonstrate them. That he should ask for a class in any particular study and give the pupils a rigid oral or even written review, while the teacher may be attending to some other duty, is proper, for by this means he can find out how much instruction has been given since his last visit, and how thoroughly the course of study is being adhered to. It is, however, often best to allow the teacher to pursue the usual routine of exercises, in order that the supervisor may see the school at its every day work.

An inspection of the teacher's register should not be forgotten. Such a register in every rural school should show the name and age of each pupil, the studies pursued, where each class commenced and its progress during the term, so that a new teacher can at a glance understand at what point the study of each branch to be taught is to be taken up. The supervisor should insist that such a register be carefully kept by every teacher under his control.

A private record of his own, in which names, dates, classes heard, conditions of rooms and premises, material needed and general observations are kept, will aid the supervisor. He can by this means trace the development of any one school, and can more readily observe whether it progresses or retrogrades.

*The Supervisor's Relation to the Comfort and Health of the Pupils.* — The supervisor should not be blind to the small things which minister to the comforts of the pupils. Often the rural school teacher has received no instruction upon these points. If the supervisor finds pupils facing a strong light, he should call attention to the evils likely to ensue, and suggest a remedy. The same is true as regards unsuitable desks or seats. The necessity of proper ventilation and proper tem-



perature should be constantly dwelt upon. Without a thermometer, with no means of ventilation except the door and windows, the rural school teacher needs and appreciates all the suggestions an intelligent supervisor may make.

Akin to this is the suggestion that the supervisor should insist that the schoolroom be kept clean and neat, for sanitary reasons. The floors should be scoured as often as they are soiled; the wood, trash and ashes should be carefully kept away from around the stove. The walls should be swept free of dust, the chalk racks kept clean and the window panes polished. Pupils also should be required to keep their desks in order and their books clean. It is stimulating to the little ones and helpful to teachers for the supervisor to have them show their books, and to take occasion to comment on the care or on the untidiness with which they are kept.

*The Supervisor's Relation to the Aesthetic Surroundings of Pupils.* — No better educational influence can surround the children than a well arranged schoolroom, whose floors and windows are clean, whose walls are free from dust and decorated with pictures, whose school grounds are well ordered and shaded by trees and adorned with flowers, and the school presided over by a qualified teacher who is the personification of neatness and good cheer. Under such conditions the child is self-restrained, and respects himself because his surroundings are respectable. The child naturally puts himself in harmony with his environment. If the teacher is neat and the schoolhouse is in proper order, the pupil will copy the example. Day by day beautiful, comfortable and clean surroundings will have their ethical influence upon his development, until he comes in time to abhor anything that is not beautiful, well ordered and clean. This point is too often overlooked in plans for supervision. The reverse of this feature is also true. The rural schoolhouse, generally speaking, in its character and surroundings is depressing and degrading. There is nothing about it calculated to cultivate a taste for the beautiful in art or nature. If, under the influence of intelligent supervision, this can be changed, it will be a work over which coming generations will rejoice.

“There is scarcely a sounder principle in pedagogy than that care begets care; order, order; cleanliness, cleanliness; and

beauty, beauty. Things conspicuously good command the respect of children, invite their imitation, and in ways real, though obscure, sink into their souls and mould their being. The power of good example in men and women no one disputes, but there is power akin to it in things, provided they embody the better thoughts of men and women, — a power of which more should be made in school management than is made at present " (Massachusetts State Report, 1895).

If children are daily surrounded by those influences that elevate them, that make them clean and well ordered, that make them love flowers and pictures, and proper decorations, they at last reach that degree of culture where nothing else will please them. When they grow up and have homes of their own, they must have them clean, neat, bright with pictures and fringed with shade trees and flowers, for they have been brought up to be happy in no other environment. The true test of our civilization and culture is the kind of home we are content to live in; and the influences of our schools should help to form a disposition for those things that make home life happy and healthy. If the farmer's boy can be taught to love books when he is at school, he will have a library in his home when he becomes a man; if the farmer's girl can be taught decoration at school, she will want pictures and flowers and embroidery when she becomes a woman.

We appeal also for the influence of classical art in our schools. If we have pictures, why not have reprints of those that have moved the hearts of men? Why not have the best looking down from our school walls? They are within the reach of any purse. One reprint from the great masters is an uplifting influence for all time. Cheap and gaudy advertisements, glaring and painful chromos, depress the true spirit of art and perpetuate the crudeness we seek to overcome.

The same can be said of music. If we are to sing songs, why not sing the songs of masters? They have sung many for children, beautiful far beyond the rude compositions that fret our ears everywhere. Also with literature. Why not read the simple classics written for the little ones, and the greater classics for the older ones? Why not in all things get the noblest and best that the world has given, and use them to help our children onward and upward?

The silent influence of clean surroundings, of cheerful teachings, of classical pictures and music and literature, the presence of flowers and their care, the planting of shade trees and studies of their growth, will be a supervision so constant and so searching that no child can escape it. Under its potent warmth, like the steady, quiet shining of the sun, the child plant grows into all the marvelous possibility of flower and fruit.

*Summary of Desirable Qualifications in the Supervisor.* — As to the character of the supervisor who is brought in contact with the rural school teacher in the discharge of his official duties : —

1. He should be selected with special regard to his peculiar fitness for that office. Whether his office is elective or appointive, his qualifications, in order that he may be eligible, should be such as to enable him to challenge the respect of those whose work he is required to supervise.

2. In regard to his scholarship, it should breathe that essential spirit of learning necessary to making good, strong schools. The position of supervisor should be made professional with a view of meeting the demand for the best education which the rural school can possibly afford. This requires a scholarship which is above that of the ordinary man. The tendency to put persons in the supervisory position who have no mental attainments worthy of mention is earnestly deprecated.

3. In regard to moral character, the supervisor should be a living, inspiring example of such a life as alone is worthy the Christian civilization of our times. He should carry with him a spirit of sincerity in his work, so that people, teachers and pupils may look to him with hearty respect, and with entire confidence in the integrity of his purposes.

4. In regard to his professional spirit, he should be in touch with the best educational thought of the times, carrying with him to the country school teacher and to the people of a rural community the freshness and life which come from reading and studying whatever bears upon the questions he is called upon to aid in solving. He should be a leader, endowed by nature with strong native sense, and at the same time able to impart enthusiasm and energy to all with whom he comes in contact.

*Summary of the Purposes of Rural School Supervision.* — As to the purposes of rural school supervision : —

1. It should serve to inspire and stimulate the rural school teacher. If the supervisor is alive to his opportunities, every teacher within the sphere of his influence will be quickened and lifted up to higher efforts for the good of the school. The teachers should learn to look upon him as a friend, and not as a critic ; as a wise counsellor, and not as a mere fault-finder.

2. It should be the means of awakening and stimulating the pupils, as well as the teacher. They should look for the visits of the supervisor with pleasure, and profit by his talks and advice. By instituting a system of central examinations for the rural schools, he may quicken and encourage the brighter pupils to obtain the best education within their means. The influence of a scholarly supervisor over the pupils is a very desirable thing in the rural school.

3. The improved condition of the rural schoolhouse is a sure index of the work of a competent supervisor. The present lamentable condition of these buildings is due largely to ignorance and neglect. Competent supervision in skilful hands can work a marvelous change. The cultivation of a spirit of order and neatness, which leads to the ornamentation of the school grounds and to a watchful care over all the environments of the schoolhouse, is one of the purposes of supervision.

4. Supervision does not accomplish its legitimate purpose when it fails to cultivate a strong, healthy public opinion in favor of everything which tends to make a good school. Hence, the supervisor who contents himself with a perfunctory visit to the school only is not a supervisor in the broad sense of that word. A large share of the work of the supervisor is away from the school and among the people.

*Summary of Results to be expected from Intelligent Supervision.* — As to the results to be expected from intelligent supervision : —

1. In regard to the school, it unites teachers for a common purpose, and, by teachers' meetings and by the visitations of the supervisor, it breaks up the monotony and isolation of the country school. Under its influence better teachers find their way into the schools, better methods of instruction prevail, and the tone and spirit of the school are greatly improved.

2. In regard to the community at large, supervision is just beginning to do its legitimate work. In the establishment of school libraries, in the relation of the supervisor to the directors, in an improved school architecture in which due regard is had to sanitary conditions, in the ornamentation and care of the school grounds, in school extension, in the introduction of studies which will add to the attractiveness and profit of life on the farm, in the consolidation of small districts into larger and stronger schools, in awakening a public interest in rural education,—there is a field large enough to occupy the time and thought of the most progressive and most intelligent supervisor. It is here we are to look in the near future for the best results of supervision as concerns the rural schools of the country.

#### EXTRACTS FROM THE REPORT OF THE SUBCOMMITTEE ON SUPPLY OF TEACHERS.

*Teachers.* — There must be in rural communities a clearer appreciation of the qualities essential to a good teacher. It is too often the case that no distinction is made between a teacher of superior scholarship, of proven ability in instruction and discipline, of long experience, and one far inferior in all the qualities essential to success.

The teacher must be engaged for the school year. In many cases the engagement is from term to term, and these frequent changes are without exception classed among the most potent causes of failure in the rural school. It is widely true that the school is in session less than half the year; it is often true that in this short school year two teachers are employed, and seldom does a teacher remain a second year. Engagements should be for a longer term than one year, or continuous, and terminated only for cause, as is the case in many cities.

*Lengthening of the School Year.* — The school year must be lengthened to a full school year of nine or ten months. In many States a minimum length is prescribed by statute, but in few cases is this sufficient. Whatever efforts may be made for the improvement of the rural school, until there can be offered a “year’s work and a year’s wage,” it will be difficult and often impossible to retain accomplished teachers for continuous ser-

vice ; with this, many such teachers would choose this service, from family and social connections, and from a natural preference for rural life.

In countries in which people are accustomed to the action of centralized authority, prescription settles the matter ; as in France, where the school year is more than forty weeks ; in England, where, as conditions of receiving the government grant, the principal teacher at least must hold the government certificate of qualification, the school premises must be in good sanitary condition, the staff, furniture and apparatus must be sufficient, and *the school must have met 400 times (200 days) in the year.*

In countries like our own, in which popular initiative in political matters has been the rule, success must usually come by other methods, and in this respect we have much to learn from our neighbors. In Canada the schools have been lengthened to a full school year mainly under the stimulus given by the mode of distributing the government grants.

Letters and reports have been received from the different provinces. By these it appears that the average length of the school year was in Ontario 212 days ; in New Brunswick, 216 days ; in Nova Scotia, 198.7 days, the full school year being 216 days, and some schools exceeding this limit. A report from Regina, in the province of Assiniboia, states that the full year is considered to be twelve months, less the holidays, amounting to seven weeks ; but this limit cannot be attained where the sparseness of the population obliges the pupils to travel long distances, on account of the severity of the winters.

Adding to our plan of requiring a minimum school year the Canadian plan, already in a degree recognized in some recent school legislation, of making the amount of government grant depend in a large degree upon the length of the school year and the average attendance, consolidating schools wherever practicable, and giving from the larger units of school administration to aid the smaller and weaker, the obstacle of the short term and insufficient compensation can be removed.

*Competent Supervision.* — Incompetent supervision forms one obstacle to a supply of better teachers. This obstacle may be removed by securing professional supervision, as is provided

by the plan of district supervision so successfully applied in Massachusetts, and just enacted in Maine. The subcommittee on supervision treats this subject fully.

It is necessary that more definite tests of professional fitness for the work of supervision be instituted. The extension of pedagogical instruction in colleges and universities in recent years is gradually elevating the work of supervision to a higher pedagogical plane, yet the point has not been reached of demanding professional preparation as an essential condition.

It is not unreasonable to hope that in the not distant future the popular standard of education may be so raised that on all educational boards of control, from the State board down to the county or township school board, so much of pedagogical fitness, from the professional point of view, may be demanded as to insure the intelligent consideration of such questions pertaining to the profession as may come before them.

*Recognition of Rural Environments.* — Much is said of the necessity for considering the environment of the child; for bringing into his school life the thoughts and interests of his home life; that the school may not prove to him a thing remote and foreign; of making the school a recognition of his past and a preparation for his future. Little sign of this can be found in the ordinary rural school.

The courses of study in the normal school of all grades should recognize more fully than they do the environment and probable future life of the children in the schools, or, rather, they should recognize the lines along which lives of most probable future happiness would lie. As has been shown, much the largest class of the workers of this country is engaged in agriculture. The environments of their children are rural. The rural school should aim especially to make country life more attractive and beautiful, and should pay more attention to rural industries.

*Summary of Main Points.* — Although there is in general an increase in interest in educational questions, and an elevation of standards of teaching, yet the large majority of rural school teachers now enter upon their work with no professional preparation; the improvement in the character of rural schools, where there has been any improvement, has been slow; large

sections of the country report no advance ; some report a decline.

The causes for this condition, and the changes needed, are not far to seek : —

1. The school year must be lengthened to a full school year of nine or ten months, in order that skilled teachers may be retained. This result can be secured, as it has been secured elsewhere when its absolute necessity has been recognized. The State, among other conditions for payment from the school fund, may prescribe a full school year, which is done in England, as logically as six, or seven, or eight months, now done in some of our States ; or it may secure this result, as it has been secured in Canada, by making the length of the school so prominent a condition in the distribution of the school fund as to insure the co-operation of the county and the town to this end.

2. The existing agencies for the supply of teachers for rural schools do not suffice. There must be modifications in these, and the provision of others.

3. There must be some definite standard for the certification of teachers, coming within reach of the teacher of the rural school, and encouraging advance to such higher degrees of attainment and skill as will give full professional recognition. And your committee believes that some provision should be made to secure interstate recognition.

#### EXTRACTS FROM THE REPORT OF THE SUBCOMMITTEE ON INSTRUCTION AND DISCIPLINE.

*Obstacles to grading Pupils in Rural Schools.* — A school with ten pupils, of ages from five to fifteen years, of different degrees of advancement, some beginning to learn their letters, others advanced from one to eight or nine years in the course of study, cannot be graded or classified to advantage, but must for the most part be taught individually. The beginner who does not yet know a letter should not be placed in a class with another who began last year and can now read lessons in the middle of the primer. It will not do to place in the same class a boy beginning numeration and another one who has already mastered the multiplication table. The beginner in



grammar has not yet learned the technique, and is confused and discouraged by the instruction given to another pupil in his class who has already learned the declensions and conjugations.

Any attempt, in short, to instruct two or more pupils in a class, when there is a difference of a year's work in their advancement, results in humiliating and discouraging the less advanced and in making the maturer pupils conceited. Higher learning in the possession of a fellowman seems to an illiterate person as something magical, or bordering on the miraculous: he can make combinations of thought which surprise those who are unused to them. The case is worse with the child in school. To him the elevation given by a year's study seems an endowment of nature and not a result of industry. Permanent injury to the pupils is very often occasioned by wrong classification; for not only does the lower suffer from discouragement, but the higher pupil is necessarily injured by not being held to his best. The teacher is perforce obliged to adapt the lesson to the average of the class. This does not give enough work for the advanced pupil although it gives too much for those below the average. There is not enough demand upon the first to continue the increase of his powers; he becomes indolent, and stops growing.

For these reasons, classification as above described ought not to be expected in the rural school; it must remain ungraded, and, as a result, the teacher must resort to individual instruction wherever there are intervals of a year or more in degrees of advancement between pupils, and this is the actual practice in perhaps the majority of such schools. The older pupils at least should have separate grammar, history and arithmetic lessons.

It is understood by your subcommittee, as a matter of course, that even in a small school of six to ten pupils there may be two or more pupils of sufficiently near stages of progress to form one class,—for example, two beginners in arithmetic, grammar, geography or history. It may be that a dull pupil has already been studying arithmetic, grammar or history for a quarter or a half year, and that a bright pupil just commencing the study would be able to keep up with him on a review from the beginning of the book; but it would not do to place a dull pupil commencing a study with a bright one who had already a

half year's start in it. It often happens that pupils placed in the same class at the beginning of the year separate widely in power to learn new lessons before the middle of the year. In such cases a class should be broken up, to prevent the two-fold injury, namely, to the bright pupil by assigning him too short lessons, and to the dull pupil by assigning him more than he can well accomplish.

*Difficulties due to Short Recitation Periods.* — The teacher, even after forming classes in writing, reading and spelling, has twelve to fifteen lessons to hear in a forenoon, and nearly as many more for the afternoon. There is an average of less than ten minutes for each recitation. The ideal of the recitation or class exercise is that the teacher probe to the bottom the pupil's preparation of his lesson, and correct bad habits of study. If the pupil fails to master by sufficient industry the details, — the facts and external items, — the teacher counsels and reproves, requiring more work on the same lesson. If he finds that the details are mastered, the teacher next tests the combinations, — the thoughts that the pupil has used in connecting one fact with another and in seeing relations. Facts are connected so as to form a science, when each one is made to throw light on every other fact, and all explain each. So a lesson is learned properly when the pupil can place each item in its systematic relation to the whole. He must understand the bearings of all; he must think out the interrelations.

Hence it happens that the good teacher is not satisfied with a memoriter recitation of the details of the lesson, still less with a word-for-word rendition of the text-book. Not the mere words of the book, nor even the disconnected facts or details which the words indicate, but to bring out the thought which unites these details and explains them, is the main object of the good recitation. But such a recitation requires time. The teacher cannot probe the pupil's knowledge in five minutes, and correct his bad habits of study, — nor in ten minutes. In the necessarily brief recitation of the ungraded school there is barely time to test the pupil's mastery of the external details of the lesson, the mere facts and technical words. It is for this reason more especially that the rural school has been the parent of poor methods of instruction, — of parrot memorizing and of learning words instead of things.

*Able Men from Rural Schools.* — At the beginning of this century only one thirtieth of the inhabitants of the United States lived in towns of 8,000 people or upwards, and more than 90 per cent. of all the public schools were ungraded schools. The question has often been asked how it is that so many able men who became scholars and statesmen and professional men of eminence could have come from schools as poor as the rural school is said to be. Such eminent men as were produced in those times came from the rural school; there were few graduates from graded schools to compete with them. Of the men now living, past the middle age of life, nearly all received their early education in the rural ungraded school, because even as late as 1850 at least 80 per cent. of all the public schools were ungraded, there being only  $12\frac{1}{2}$  per cent. of the population resident in cities. The rural school threw on the pupil the burden of his education. He was obliged to get his knowledge from books, — such books as he could come to possess. Bright pupils do pretty well by themselves if given good books and taught how to read and to understand the technique used in the elementary books of mathematics, grammar and the other liberal arts. Any country boy who acquires a love for books, who has access to the best ones and studies them with energy, will by middle age become a learned man.

*The Ideal Classified School.* — In the ideal classified school the teacher has two classes of pupils, each class containing within it pupils substantially at the same stage of advancement. The pupils of a given class recite together in all the branches, and the teacher has a half hour for a lesson, and can go into the dynamics or causal relations of the facts and events treated.

Each pupil in a class learns as much from his fellow pupils as from the teacher direct; for the teacher draws out of the class its store of observations and reflections on the topic of the lesson. He shows up the one-sidedness of the preparation of the individual pupil; some have neglected this point, and some that other point. Each has probably neglected something. But, on the other hand, each of the diligent ones has brought forward something new that is valuable to his fellows. Each pupil finds through the recitation of the others that they have seen some things that had escaped his notice, although he supposed that he understood thoroughly the book presentation of

the subject. His teacher suggests many new ideas, and criticises the one-sidedness of the views of the pupils, and also, it may be, of the text-book. All the statements of the book are brought to the test of verification, — either through the child's experience or through other authorities. The child thus learns the method of study.

*Reasons for consolidating Small Schools.* — The ideal classified school can teach and does teach proper methods of study; the rural school cannot do this effectively in its five or ten minute recitations. It is because of this that wise directors of education have desired the consolidation of small schools into large schools wherever practicable. Two schools of ten each furnish on an average one half as many recitations if united as they do when separate, owing to the possibility of pairing or classifying pupils of the same degree of advancement. Ten such schools united into one will give one hundred pupils, with a possibility of classes of ten each, which can be more efficiently taught than before, because a pupil can learn more in a class than by himself. The class in the hands of a good teacher is a potent instrument for reaching all sides of the pupil's observation and reflection. Again, it is evident that five teachers can teach the one hundred pupils united in one school far better than the ten teachers were able to teach them in the ten separate schools. If still further consolidation were possible, and four hundred pupils were united in one school, the classification might be improved to such a degree that a teacher could easily take the charge of two classes of twenty pupils, and ten teachers could do far better work for each pupil than was done by the forty teachers in the forty small rural schools before consolidation. Hence, economy becomes a great item in what are called "union schools."

*City Systems of Classification not Applicable to Rural Schools.* — Your subcommittee would call special attention at this point to the evil results that come from the attempt to remedy the defects of the rural school by forcing on it the system of classification found in cities. It is assumed that some of the benefits of the close grading possible in cities will be gained for the rural schools if they can roughly group the whole school into three or four classes. A rural school of thirty pupils, comprising children from six to sixteen years of

age, and covering different degrees of progress from beginners up to those of eight or nine years of schooling, are grouped, let us suppose, into four classes or grades, thus leaving intervals of two or more years of school work between a given group and the next one above it.

Your subcommittee has already pointed out the evils of classifying pupils in such a way as to bring together pupils differing in degree of advancement by intervals of two years. In fact, it has been found in city schools that one year's interval between classes is too much. The greatest danger of the graded school system in cities comes from holding back bright pupils for the sake of the slower and duller pupils. Next to this is the evil to the dull ones, who are dragged forward at an unnatural rate of progress, to keep up to the average rate of the class. The best pupils are engaged in "marking time," while the slowest are constantly spurred forward by teachers and parents to keep with their class, and their school years rendered miserable. Their self-respect is undermined by a false standard, — that of mere speed in learning. The "marking time" injures the bright pupil by developing lax habits of study, while the forced marches of the slow pupil tend to destroy his poise of character. It has been found desirable, therefore, in city schools to make the intervals between classes as small as possible, so as to favor frequent transfers; namely, on the one hand, of bright pupils who are becoming capable of a greater amount of work into a higher class, and, if necessary, of those who are falling behind the average of the class into the next one below. Intervals of a half year are, therefore, adopted in a majority of the progressive city school systems, and many prefer intervals of a quarter of a year where it is practicable to make them, — that is where a large number of pupils makes possible the assignment of a requisite quota for each class.

Your subcommittee would respectfully call attention to the danger of attempting to classify the rural school in imitation of the city school as peculiarly liable to happen in those schools where professionally educated teachers are employed.

The State and city normal schools have very properly laid stress on grading and classification and on the methods of instruction by classes, and have ignored individual instruction.

Their graduates have mostly sought and obtained places in the graded schools of cities and villages. In fact, the graded schools have outbid the rural schools for teachers having professional training. But, with the new movement to secure better teachers for rural schools by larger appropriations from the State, it has happened that many experiments of classification are attempted which result disastrously in the manner described, namely, by demoralizing or destroying the courage and ambition of the exceptionally bright and the exceptionally dull pupils. The charge has been made that such rural schools as adopt a partial grading system are apt to become stiflers of talent by placing a premium on the average scholars, and holding back the promising youth of the district.

It is obvious from this that where State normal schools furnish teachers for the rural districts there should be conducted a special inquiry into the influence of the size of the school in determining the uses and the dangers of grading and classifying pupils.

There is no doubt, moreover, that the abuse of classification is the crying evil of the schools of villages and small cities. For the average pupil these village graded schools are uniformly good, but they often work injury to the exceptional pupils, and are in this respect sometimes inferior to the ungraded schools in sparsely settled districts.

*The Distinction between Grading and Classification.* — Your subcommittee would here explain that the technical terms “grading” and “classification” are often used, as above, to signify the same thing, namely, the dividing of the pupils of a school into groups or classes, each containing children of the same, or substantially the same, degree of advancement. But another meaning is often given to one of these terms. The work of the year, more or less, is also called the work of a grade, and the work of the elementary school, consisting of the first eight years’ work, is divided into eight grades. It will be readily understood, in this second use of the word “grade” as covering a year’s work, that a school may be graded, that is to say, its work may be arranged upon a program of eight grades, each one of which requires a certain modicum of reading, writing, arithmetic, geography, grammar, etc., for a year’s work, and yet have only ten or twenty pupils, and perhaps

these representing only three or four of the eight grades. By a graded school, as applied to such a state of things, is meant simply a school whose program requires a regular sequence of studies and a full quota of studies for each pupil. If a pupil is at a certain degree of advancement in his arithmetic, the program of the graded system would place him also in a class correspondingly advanced in geography, history, reading or other studies. But the small rural school has been called “ungraded,” because it contains or may contain pupils of all grades, from the lowest to the highest, and consequently obliges the teacher to scatter his teaching force over a wide range of topics. The large school permits specializing by dividing the school in such a way that the pupils of one grade, or perhaps two grades, are taught by one teacher, the next one or two grades by another teacher, etc., permitting each teacher to specialize his work by giving him fewer topics to teach, and consequently insuring longer recitation periods and constant improvement in skill.

It is to be supposed that all schools will be graded in the sense that they will have a course of study, and that pupils will take up their branches of study in due order, and that these studies will be associated, so that a given degree of advancement in one study implies a given degree of advancement in another. What is properly called the correlation of studies presupposes that a certain degree of advancement in arithmetic corresponds to a certain degree of advancement in geography, reading, grammar and other studies, all of these being determined within limits by the pupil's age. The word “grading,” as a synonym for classification, is freely used by your subcommittee in this report, but it has discussed the topic indicated in the other and less frequent use of the word “grading” in that part of its report which follows, relating to the course of study.

*The Course of Study for Rural Schools.* — Your subcommittee has assumed that the course of study in the rural schools should be substantially the same as that of the city schools. The differences should concern only minor details. It would, therefore, refer here to the report of the Committee of Fifteen for fuller details, and for the discussion of the grounds for selecting the several branches of the course of study. The

course of study of the elementary school, whether urban or rural, should contain those branches which give the child an insight into the physical world and the means of conquering it for human uses, and also an insight into human nature and the motives that control the actions of men. The child should above all be taught how to combine with his fellows to secure reasonable ends. The windows of the soul are to be opened by the five branches of the course of study, thus enabling the youth to see (1) the conditions of inorganic nature by arithmetic and the elements of physics and chemistry; (2) the conditions of organic nature by studying plants and animals, the land, water and air, and, besides these, the means that man invents and uses to connect each place with the rest of the world, — these things belonging to geography. These two “windows” look out upon nature. The three others enable us to see man; (3) literature and art as revealing human nature, arousing pure and high aspirations in the youth, and freeing him from narrow and mean views of life; (4) the study of the structure of language, as found in the several subdivisions of grammar and rhetoric; (5) history, which treats of the greater self, — of man as a social whole.

These five branches belong to all schools, for they relate to the substance of humanity, and are necessary for entrance upon civilization. Besides arithmetic, geography, literature, grammar and history, there are collateral branches that each school should include, — some of them information studies, such as oral courses in the sciences, in history and in the arts; others of the nature of disciplines or arts of skill, such as vocal music, gymnastics, manual training, the art of cooking, and some special attention to the elementary principles of the useful arts practised in the neighborhood of the school, namely, farming, horticulture, grazing, mining, manufacturing or the like.

*Relation of Studies to the Pupil's Environment.* — In general, these collateral branches should relate to the pupil's environment, and help him understand the natural features of that environment, as well as the occupations of his fellowmen in the neighborhood. There are two things to understand in this matter of the geography of the environment: first, what it is and how it came to be, — its land and water, its mountains and river valleys, its climate and soil, its productions, mineral,



vegetable and animal, and their peculiarities, how they differ from the productions of the rest of the world; second, the means by which man procures from nature what is useful for himself and others, manufactures it and uses it, or exchanges it with his fellowmen so as to share in the productions of all climes and places, no matter how far distant. If a comparison must be made, this second topic of elementary geography is more important than the study of the natural features of the environment, because it is more immediately useful to the pupil and to the community in which he lives.

Let the pupil beginning the subject of geography commence with what is nearest to his personal and social interests, namely, with the products of the industries of his section. Let his studies go out from these products in two directions: first, to the natural conditions which make these products possible, and which furnish in general the raw material; secondly, in the direction of the purpose of this, the uses made of it, the things produced, the needs and wants of his fellowmen near and far, and the productions of the other parts of the world which are needed in his section to complete the supply of articles for food, clothing, shelter, protection and culture. These items, including natural production and the human occupations of manufacture and exchange, may be said to be the chief theme of geography as it should be taught in the elementary schools. But the home environment is also to be kept in mind by the teacher throughout the entire course. Arithmetic should gain concreteness of application by its use in dealing with home problems. Literature should be pointed, and applied, so far as may be without becoming provincial, to the pupil's environment; and so the other branches — history, and even grammar — should be brought home to the pupil's knowledge or experience in the same way. The pupil should have prepared for his study a list of the chief provincialisms of speech to which his section is addicted, and to the peculiarities of pronunciation in which his neighborhood departs from the national or international standard of usage.

*The Central Idea in Geography.* — The Committee of Fifteen has already advanced the opinion that the industrial and commercial idea is the central idea in the study of geography in the elementary schools. It leads directly to the natural

elements of difference in climate, soil, productions, races of men, religion, political status and occupation of the inhabitants, and it explains how these differences have arisen in some measure through cosmic and geological influences. It should be the teacher's object to make the pupil understand, just as early as his growing capacity admits, the peculiarities of his habitat, leading him to study the land and water formations in his neighborhood, and giving him power to recognize in the visible landscape about him the invisible forces that worked in the past, and still are at work in the present, moulding these shapes and forms. On the basis of this knowledge of the elements of difference produced by nature in soil, climate and configuration of the landscape, he should explain the grounds and reasons for the counter process of civilization which struggles to overcome these differences by bridging the rivers and tunnelling the mountains, — by using steamboat and railroad so as to unite each particular habitat with the rest of the world. He should see how man adapts to his needs the climate of each place by creating for himself a comfortable temperature, using for this purpose clothing and shelter, as well as fuels of wood and coal or derived from oils and gases, to protect from cold; and, on the other hand, utilizing ice or power fans, and creating easy access to summer dwellings on the heights of mountains or at the seashore, to mitigate the heat. He turns the soil into a laboratory, correcting its lacks and deficiencies by adding what is necessary to produce the crop which he desires. He naturalizes the useful plants and animals of all climes in his own habitat. It is evident that the details of the process by which differences of soil, climate and production arise, important as these are, should not be allowed to occupy so much of the pupil's time that he neglects to study the counter process of industry and commerce, by which man unites all parts of the earth to his habitat, and progressively overcomes the obstacles to civilization by making climate and soil to suit himself wherever he wishes.

To restate this important point in a word, it is true that the deeper inquiry into the process of continent formation — the physical struggle between the process of the upheaving or upbuilding of continents, and that of their obliteration by air and water; the explanation of the mountains, valleys a

plains, islands, volcanic action, the winds, the rain distribution,—is indispensable to a comprehension of the physical environment. But the study of the cities, their location, the purposes they serve as collecting, manufacturing and distributing centres, leads most directly to the immediate purpose of geography in the elementary school, for it is the study of that civilization in which the pupil lives and moves and has his being.

Keeping this human standpoint in view all the time as a permanent interest, the inquiry into causes and conditions should proceed concentrically from the pupil's use of food and clothing to the sources of the raw materials, the methods of their production, and the climatic, geologic and other reasons that explain their location and their growth. It is important in this, as in all matters of school instruction, to avoid one-sidedness. Although the human factor should receive the most emphasis, special care should be exercised lest the nature factor should be neglected.

Your subcommittee would refer to the discussion of this subject under the head of "Geography," in the report of the Committee of Fifteen, for further illustration.

*Branches not yet reduced to Pedagogic Form.* — There is not much use in requiring instruction in branches not yet reduced to pedagogic form. It is necessary that matters taught should be so systematized for school use as to admit of arrangement in a progressive series of lessons, the first of which alone would be useful if no second lesson followed, and the subsequent lessons each useful if the pupil studied none of the following.

Each lesson when arranged in a pedagogic form leads up to the following lesson and makes it easy to grasp, just as each stair makes the next one easy to climb. For example, the first lesson in cookery is an exercise in accurate measurement by spoonfuls and cupfuls, etc., and calculated not only to aid in the next lesson and make it possible, but also to be of use through life in the kitchen. Concerted efforts are being made in agricultural colleges to reduce to pedagogic form the arts of the farm, the garden and the forest.

*Relation of the Course of Study to the System of Grading and Classification.* — Your subcommittee deems it important to call attention again in this place to the prevalence of a mis-

conception in regard to the relation of the course of study to the system of grading and classification. Every school, whether ungraded or graded, should have a course of study minutely arranged, so as to show the average or reasonable rate of progress of the pupil of a given age and advancement in the work of the school; but, as has already been shown, it is not required that the school shall contain classes in each and all of these grades, nor indeed classes at any given stage of progress in the course of study as laid down for any particular quarter or term of the year. Above all, it must be understood that in laying down the quarters or other divisions of a grade or year's work it is not to be expected or desired that the pupils entering school at the beginning of the school year in the fall should commence at the beginning of any grade's work. If a class consisting of two or more individuals (or of one individual only) left off the previous year in the third quarter's work of the fourth grade, it should begin its work after vacation at the point where it left off, unless there are special reasons which require a review of some portions of the work.

The course of study is the measuring rod or scale which is used to determine at what point in the eight years' work of the elementary course a pupil has arrived. It should not be used as the Procrustean bed on which to stretch the work of the school in order to give it uniformity. It has happened not infrequently in the past that upon the first adoption of the graded system the superintendent of city schools held annual examinations on the completion of the work of the grade, and for this purpose insisted upon the unreasonable requirement that all of the pupils in the school should have begun the work of a grade on the first day of the year and should be expected to finish the grade work in the fourth quarter of the year. This was said to be for convenience of promotion, — all pupils leaving the work of one grade and passing to the next were said to be promoted. This fiction has effected serious injuries in city schools. The apparent reason for such a system was the convenience of the superintendent, who desired to make only one set of questions for each grade, and hold his examinations all at one time. If he had adopted a plan of preparing an examination for any class of pupils at the time when they should have completed the work of the grade (whether in the

first, second, third or fourth quarter), such a system need not have existed. The false idea of promotion has also been the source of great evils. When a pupil has finished the work laid down in the course of study for any grade, he should begin the work of the succeeding grade at once, and it is not necessary to have any special examination. The class teacher is supposed to examine her pupils from day to day, for each recitation is an examination revealing the pupil's understanding not only of the day's work but of his previous lessons; and the principal of the school is supposed to be well acquainted with the progress of his pupils. It is not necessary, therefore, to hold a general examination on the work of the grade, if the class teacher and the supervising principal have performed their duty.

*Written Work.* — It is understood, too, that there should be much written work in the school, but that it should not as a rule take the form of competitive examinations. There is no other exercise in the school more valuable than that of written expression, but this should be limited chiefly to the review work of the pupil. The teacher, for illustration, should prepare questions at the close of the week, on the previous five or six days' work, — such questions as bring out the most essential points and the principles which connect the details that have been studied. The pupil should be permitted to sit down by himself, with plenty of time before him, to write out his answers to these probing questions. By this means he learns gradually to collect his thoughts, and will do more thinking in connection with his written examination than in any other test or study in his school course. The written examination should not be postponed till the end of the year or to the end of the quarter, but should be a matter of at least weekly occurrence. It should be written work of a review character, rather than examination of a competitive character.

While the course of study for the elementary school will cover eight years, and be subdivided so as to show quarterly, semi-annual or other stated progress, as already said, it will not be expected that the rural school, with its ten or twenty pupils, will have each and every grade represented; perhaps, for instance, there will be three pupils in the first grade, two in the second grade, one in the third grade, none in the fourth

grade, two in the fifth grade, none in the sixth and seventh and two in the eighth grade.

*Discipline of the Rural School.* — Your subcommittee assumes likewise that the discipline of the rural school should be strict though mild, like that of the city school. The fundamental school virtues of regularity, punctuality and industry are auxiliary to moral virtues, and form together a training of the will which is of great importance in producing the future good citizen. It must not be thought that, because a school is small, therefore the discipline is of less importance. The formation of habits of order, and of respect for the rights of the social whole, is necessary for the good citizen, whether of country or town.

*Remedies for the Evils of the Rural School.* — Your subcommittee would here point out that some of the evils of the rural school are due to its non-social character, its inability to furnish to each of its pupils that educative influence that comes from association with numbers of the same age and the same degree of advancement. The rural school furnishes only a few companions to the youth, and those either above him or below him in grade of progress in studies. The remedy for the evils of the ungraded school are suggested by this very feature or characteristic. Radical remedies in this case must all contain some device to bring together pupils of different districts, and bring into wholesome competition with one another the pupils of the same grade of advancement.

*Transportation to Central Schools.* — The collection of pupils into larger units than the district school furnishes may be accomplished under favorable circumstances by transporting at State or local expense all the pupils of the small rural districts to a central graded school, and abolishing the small ungraded school. This is the radical and effective measure which is to do great good in many sections of each State. As shown already by the subcommittee on the maintenance of schools, Massachusetts, in which the plan began under the town superintendent of Concord, Mr. John B. Tileston (about the year 1878 in Concord, or even earlier in the town of Quincy), paid in 1894-95 the sum of \$76,608 for the transportation of children from small rural schools to central graded schools, — 213 towns out of a total of 353 towns and cities using this plan to

a greater or less extent, and securing the two-fold result of economy in money and the substitution of graded for ungraded schools. The spread of this plan to Maine, Vermont, New Hampshire, Connecticut, Rhode Island, New Jersey, Ohio, and some other States (see Report of Bureau of Education for 1894-95, pp. 1469-82), demonstrates its practicability. Experiments with this plan have already suggested improvements, as in the Kingsville experiment in Ohio, where the transportation reached in all cases the homes of the pupils, and yet reduced the cost of tuition from \$22.75 to \$12.25 a year for each of the fifty pupils brought to the central school from the outlying districts.

*Improvement of Roads.* — Wherever this plan of abolishing the small ungraded school is practicable it is by far the best remedy to be applied.

But there will remain large numbers of small ungraded rural schools in which the plan of transportation is not feasible by reason of great distances and poor roads. The agricultural department is seconding the efforts of many States to improve roads in rural districts. In many places road improvement is a necessary condition previous to the betterment of rural schools.

*Special Appropriations for Small Rural Schools.* — The device of securing skilled and professionally trained teachers, by providing, as in California, a sufficient salary for each district, no matter how few its pupils, has already been described by another subcommittee (that on maintenance). It is undoubtedly a wise measure, provided it does not hinder the consolidation of districts through the adoption of the Massachusetts plan. If it works to preserve the small ungraded school in places where consolidation is feasible, it will in the end be an injury to the cause of rural schools. Your subcommittee therefore ventures to call attention to the importance of adopting such laws as are operative in California, New Jersey, Massachusetts and New York, for the better remuneration of rural school teachers, but with a proviso that makes it a pecuniary advantage to a town to abolish its outlying ungraded schools and furnish transportation to a central school.

*Concentration of the Higher Grades of Pupils.* — Where transportation of the whole school is not feasible, it sometimes

happens that the teaching may be very much improved by the transfer of two or three of the pupils of the higher grades who consume very much of the teacher's time. By transportation of these two or three pupils to the central school, the teacher thus relieved may find time for much better instruction of the pupils in the lower grades who remain under his charge.

*School Exercises at the Town or County Centres.*—For the small ungraded schools that cannot be abolished, perhaps one third of all the schools in the United States at the present time, your subcommittee suggests the provision of occasional meetings at town centres or county centres, perhaps twice a year or oftener, under the direction of township, union township or county superintendents, as the case may be. The meeting should have as its primary purpose the bringing together of advanced pupils, say sixth to ninth year's work, for examination and comparison, the examinations to be chiefly written. Certificates should be given to those who complete the elementary course of eight years as a whole or in any one of its branches, permitting a pupil who passes in one branch this year, say in grammar or history, to pass in another branch at a subsequent examination whenever he presents himself. These examinations have been in operation in several counties of New Jersey for nearly twenty years.

This plan has an interesting and profitable illustration of many of its features in the operation of the Boxwell law in Ohio (State School Commissioner Corson, Report 1895-96). It was also carried out years ago in many particulars by Superintendent Wade in West Virginia.

*The Proper Use of Competitive Examinations.*—It is understood by your subcommittee that the prejudice against competitive examinations is well grounded. It often happens that schools are subjected to mere mechanical drill, in order to secure a higher per cent. in this sort of examination. High per cents. cannot be obtained by entire classes upon work which requires not only a knowledge of details, but a knowledge of the causal relations underlying them. Your subcommittee desires to say that it does not recommend indiscriminate competitive examinations, but that it recommends written work and examinations which test the thinking ability of the pupil and lead him to considerate inquiries and accurate statements. High per cents.



on anything except mechanical work, such as spelling, the multiplication table, the tables of weights and measures and paradigms, are not desirable.

The plan of township and county union exercises of rural schools above described obviously includes the good feature of social interconnection, each pupil of the remote districts working consciously in combination with many others towards a common end, and all the pupils stimulated both in school and out of it by this social motive.

*Promotion of Home Reading.* — The excellence of the Chautauquan plan for the promotion of home study lies in the same feature. Each reader is stimulated and encouraged by the consciousness that he is working on a task common to the endeavors of a vast multitude. The task is dignified and ennobled by such social participation. The youth in the rural district is by this plan to be made a home student, and his education is thus to be extended beyond the school. He may have obtained his first recognition in the township examination while he was a member of a rural school. He is an object of semi-annual inquiry on the part of the township or county superintendent for years afterwards. Each new teacher that comes to the rural school is charged by the superintendent with the duty of looking up the young men and young women who made a record in the central examinations, and inquiry is made after their continued reading and study. This in itself will be a powerful influence to cause young people to continue self-culture by studying a prescribed series of books in years subsequent to the school period. It will add dignity and self-respect to the rural school teacher who is charged with the work of making friendly inquiry into this school extension, and of offering help in case of application from any of the parties interested.

*Reviewing Studies.* — The rural school, with its five-minute or ten-minute recitations, cannot do much in the way of reviewing previous lessons. The good teacher in a graded school carries on from day to day a review of previous lessons. He gathers up and connects with the lesson of the day all the essential threads that bind it to what has gone before. It is this work of reviewing that will be assisted by the occasional examinations at the township centre.

Moreover, the old evil of the rural school, that of having all pupils begin at the beginning of the book at the commencement of each annual term, will be removed; for the superintendent will have a record of the standing of the advanced pupils, and will require a report from the new teacher as to their program of study.

This plan also points to the utility of more written work in the rural school. A set of questions prepared beforehand and given to a pupil at the close of the week, as above recommended, will test not only his knowledge of the superficial details of his week's work, but also of his understanding of their deeper connections and principles, as no oral recitation could be made to do.

*School Extension.* — In this connection another branch of what is called "school extension" or "university extension" is practicable. Home reading can be managed from the same centre, namely, the rural school. Everything that adds social importance to the rural teacher may be of service. It is evident that those pupils who have graduated from the public school and have entered upon the business of life may profitably carry on useful courses of reading in the various departments of literature and art, science and history. The township or union township superintendent, in conjunction with the county superintendent or State superintendent, should set into operation as far as possible courses of home reading, employing the aid of the rural school teachers to carry this into effect. A record containing the names of the persons who have undertaken home reading, the names of the books completed and the dates of such completion, will form an interesting record. This home reading, moreover, should have its social gatherings, in which there are discussions of the contents of particular books that are read. For this purpose the township superintendent or the county superintendent may select specially well-fitted persons, who shall present analyses of the books and discussions of their contents. It is desirable that the course of home reading shall not be one-sided, but shall move in each of the three directions: literature, including poetry and prose; science, looking towards the organic and inorganic kingdoms of nature, the plant, the animal and the details of matter and

force ; and towards archæology, ethnology and sociology, and politics, history, biography and art. One must not be altogether dissatisfied if it is found that the novel is the chief book in demand, especially in the first five years of the home reading circle. In our day the novel discusses every question of history, politics, sociology and natural science. The old-fashioned novel, which describes manners, has its great use, too, in the fact it gives to the people of whom we are speaking, the people of the rural districts, a ready knowledge of manners and customs of polite society. In this respect it is sometimes more useful than books of science and history.

*Lancasterian or Monitorial Plan.* — The topic of written work suggests a further topic of great importance in the rural schools, namely, that of the occasional employment of older pupils in the work of supervising the exercises of less advanced pupils : a committee of two or three pupils to examine and mark the papers written by those studying geography ; a monitor assigned for some hour in the day to inquire into the work of a backward or dull pupil who has reached a difficult place in arithmetic ; a similar assignment of a pupil to help another in a grammar lesson or a history lesson, — these are cases where the monitorial or Lancasterian system may have greater or less utility. It cultivates directive power and self-respect in a pupil to be called to the aid of the teacher. But the dangers of it are well known. No weak disciplinarian should try the monitorial system. On the other hand, every strong disciplinarian in the ungraded school can use some features of it to advantage.

The bane of the Lancasterian system was its use to furnish cheap assistant teachers in graded schools. It resulted in bringing into the schools a class of so-called “ pupil-teachers,” — educational novices, in the place of experienced and professionally trained teachers who ought to be everywhere employed in graded schools. Limited entirely to ungraded schools and to teachers with disciplinary power, the older pupils may profitably be employed to help in the work of the school. But they should not take up any work continuously ; it should all be occasional, inasmuch as every thread of the school work must come under the eye of the schoolmaster frequently, — daily, or

nearly as often. If he has asked an older pupil to explain a point in arithmetic to a dull pupil, the latter will show the degree of efficiency of that help in the first recitation after it.

Another rule for the guidance of the teacher is, never to employ a monitor unless such assignment of work is useful both to the pupils taught and to the pupil-teacher.

A teacher may gain time needed for assistance of the advanced pupils in some important study by requiring in advance the assistance of these pupils in some of the following forms:—

1. Marking examination papers.
2. Helping pupils over some difficulty in arithmetic, grammar or other branch, having strict logical sequence in its topics.
3. In explaining the thought of a reading lesson to a backward pupil.

The effort of one pupil to explain to another a difficult passage of literature is one of the most profitable of all school exercises. There will undoubtedly be crudities in the explanation, but this will all come out under the teacher's subsequent tests, and the exercises will increase in profit through the final explanation given by the teacher.

4. In assisting to test mere memory work on the part of a pupil, as in the case of the spelling of difficult words, the learning of paradigms in grammar, the learning of the required tables of weights and measures, the multiplication table, etc., or in any other necessary data that have to be fixed in the memory. In general, what is nearest to mechanical work may be supervised at times by monitors, and monitors may be useful in assisting in the preparation of thought lessons that are to come later before the schoolmaster, as, in the example given, the getting out of the thought of a reading lesson, or even of a history lesson.

In conclusion, your subcommittee would lay chief stress on the function of school extension, above sketched in outline, as the most profitable line of work for the improvement of the rural school,—both pupils and teachers.

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EXAMINATION QUESTIONS

FOR

ADMISSION TO THE STATE NORMAL SCHOOLS.

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JUNE AND SEPTEMBER, 1897.

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Examination for Admission to the Massachusetts State Normal Schools,  
June 24 and 25, 1897.

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## I. LANGUAGES.

The candidate will take English and *one only* of the remaining languages,— Latin, French and German. *Let careful attention be given to spelling, punctuation, capitalization, syntax, paragraphing and idiom.* Time for the entire paper, two hours.

### ENGLISH.

#### *Reading and Practice.*

1. Tell what books of the following list you have read: Shakespeare's *As You Like It*; Defoe's *History of the Plague in London*; Irving's *Tales of a Traveller*; Hawthorne's *Twice-Told Tales*; Longfellow's *Evangeline*; George Eliot's *Silas Marner*.

2. Write briefly on *any two subjects* selected from the list that follows. The point here is not the extent of your knowledge about the selected subjects so much as your ability to say a few things about them in a simple, clear and correct way.

(a) Either of the following:

Any incident in the story of Rosalind.

The fool in *As You Like It*.

(b) Either of the following:

The historic accuracy of Defoe's *History of the Plague*.

Why Defoe's *History of the Plague* has a place in literature.

(c) Either of the following:

The Great Carbuncle.

A Rill from the Town Pump.

(d) Either of the following:

How the story of *Evangeline* begins.

How the story of *Evangeline* ends.

(e) Either of the following:

Silas Marner's Gold.

Eppie's Choice of Fathers.

If the candidate, instead of writing as directed, offers an exercise book containing compositions or other written work done in connection with the reading of books from the prescribed list, and properly certified by the teacher, let the fact be mentioned under this number.

*Study and Practice.*

3. Tell what books of the following list you have critically studied: Shakespeare's *Merchant of Venice*; Burke's *Speech on Conciliation with America*; Scott's *Marmion*; Macaulay's *Life of Samuel Johnson*.

4. Comment on *one only* of the passages (a), (b), (c) and (d) that follow, limiting yourself to the points suggested:

- (a) Now he goes  
 With no less presence, but with much more love,  
 Than young Alcides, when he did redeem  
 The virgin tribute paid by howling Troy  
 To the sea monster: I stand for sacrifice;  
 The rest aloof are the Dardanian wives,  
 With bleared visages, come forth to view  
 The issue of th' exploit. Go, Hercules!  
 Live thou, I live. With much, much more dismay  
 I view the fight than thou that mak'st the fray.

Points to be treated: (1) The speaker and the occasion that prompts the speech; (2) the classical allusion; (3) the facts or features of the occasion that, in the speaker's mind, are the parallels respectively of *Alcides*, the *virgin tribute*, *howling Troy*, the *sea monster* and the *redeeming* of the tribute; (4) the justification of *much more* in the expression *with much more love*, and of *howling* in the expression *howling Troy*; (5) the expression *Live thou, I live*.

(b) My next example is Wales. This country was said to be reduced by Henry the Third. It was said more truly to be so by Edward the First. But though then conquered, it was not looked upon as any part of the realm of England.

The march of the human mind is slow. Sir, it was not, until after two hundred years, discovered, that, by an eternal law, Providence had decreed vexation to violence and poverty to rapine. Your ancestors did however at length open their eyes to the ill husbandry of injustice.

When the day-star of the English constitution had arisen in their hearts, all was harmony within and without —

— Simul alba nautis  
 Stella refulsit,  
 Defluit saxis agitatus humor;  
 Concidunt venti, fugiuntque nubes,  
 Et minax (quod sic voluere) ponto  
 Unda recumbit.



Points to be treated: (1) The nature of that experience of England with Wales to which Burke calls attention in the passage to which the foregoing sentences belong; (2) the particular lesson Burke would have England draw from that experience; (3) the meaning of the expression *decreed vexation to violence and poverty to rapine*; (4) the figure of rhetoric in the expression *ill husbandry of injustice*; (5) either the translation of the Latin passage or the sentiment it contains.

- (c) Deep drank Lord Marmion of the wave,  
 And, as she stoops his brow to lave —  
 “Is it the hand of Clare,” he said,  
 “Or injured Constance, bathes my head?”  
 Then, as remembrance rose, —  
 “Speak not to me of shrift or prayer!  
 I must redress her woes.  
 Short space, few words, are mine to spare;  
 Forgive and listen, gentle Clare!”  
 “Alas!” she said, “the while, —  
 Oh! think of your immortal weal!  
 In vain for Constance is your zeal;  
 She — died at Holy Isle.”

Points to be considered: (1) The battle raging at the time; (2) the plight of Marmion; (3) how Clare chances to be there; (4) why Marmion's doubt about the *hand* that befriends him; (5) the justification of *injured Constance*; (6) the distinction between *shrift* and *prayer*; (7) the *woes* of Constance; (8) Marmion's need of forgiveness from Clare; (9) Marmion's *immortal weal*; (10) *Holy Isle*.

(d) Quote several lines — ten to fifteen or more — from either the *Merchant of Venice* or *Marmion*, and comment upon them at discretion.

## LATIN.

1. What Latin authors or works have you studied, and how much of each have you read?

2. Take either (a) or (b), but not both.

(a) *Pyrrhus inquires of Hannibal who the greatest commander in the world is.*

*Translate into idiomatic English:*

Hannibal a Scipione victus, suisque invisus, ad Antiochum, Syriae regem, confugit, eumque hostem Romanis fecit. Missi sunt Romæ legati ad Antiochum, in quibus erat Scipio Africanus, qui cum Hannibale collocutus ab eo quaesivit, quem fuisse maximum imperatorem crederet? Respondit Hannibal Alexandrum Macedonum regem maximum sibi videri, quod parvâ manu innumerabiles exercitus fudisset. Interroganti deinde,

quem secundum poneret: "Pyrrhum," inquit, "quòd primus castra metari docuit, nemoque illo elegantius loca cepit, et praesidia disposuit." Sciscitanti demum, quem tertium duceret, semetipsum dixit. Tum ridens Scipio: "Quidnam tu diceres," inquit, "si me vicisses?" "Tum me vero," respondit Hannibal, "et ante Alexandrum et ante Pyrrhum et ante alios omnes posuissem." Ita improvise assentationis<sup>2</sup> genere Scipionem e grege imperatorum velut inaeestimabilem secernebat.

<sup>1</sup> To mark or lay out.<sup>2</sup> Flattery.

*Translate into Latin:* It seems to me that Alexander is the greatest general, that Pyrrhus is the second, and that I am the third; but had Pyrrhus been conquered by me, I should have been placed ahead of Alexander.

(b) *Dido bids the Trojans welcome to Carthage.*

*Translate into idiomatic English:*

Solvite corde metum, Teucri, secludite curas.  
 Res dura et regni novitas has talia cogunt  
 moliri, et late finis custode tueri.  
 Quis genus Aeneadam, quis Trojae nesciat urbem  
 virtutesque virosque, aut tanti incendia belli?  
 Non obtusa adeo gestamus pectora Poeni,  
 nec tam aversus equos Tyria Sol iungit ab urbe.  
 Seu vos Hesperiam magnam Saturniaque arva,  
 sive Erycis finis regemque optatis Acesten,  
 auxilio tutos dimittam, opibusque iuvabo.  
 Voltis et his mecum pariter considerare regnis;  
 urbem quam statuo, vestra est; subducite navis;  
 Tros Tyriusque mihi nullo discrimine agetur.

*Aeneid I., 561-574.*

## FRENCH.

1. Tell what you have done in the study of French, — the time spent, the authors read, and so on.

2. *Translate into idiomatic English:*

AUSTERLITZ, 12 frimaire.<sup>1</sup>

SOLDATS,

Je suis content de vous: vous avez à la journée d'Austerlitz justifié tout ce que j'attendais de votre intrépidité. Vous avez décoré vos aigles d'une immortelle gloire. Une armée de cent mille hommes, commandée par les empereurs de Russie et d'Autriche, a été en moins de quatre heures ou coupée ou dispersée. Ce qui a échappé à votre fer s'est noyé dans les lacs.

Quarante drapeaux, les étendards de la garde impériale de Russie, cent vingt pièces de canon, vingt généraux, plus de trente mille prisonniers sont le résultat de cette journée à jamais célèbre. Cette infanterie tant vantée, et en nombre supérieur, n'a pu résister à votre choc, et désormais vous n'avez plus de rivaux à redouter. Ainsi, en deux mois, cette troisième coalition a été vaincue et dissoute. La paix ne peut plus être éloignée; mais, comme je l'ai promis à mon peuple avant de passer le Rhin, je ne ferai qu'une paix qui nous donne des garanties, et assure des récompenses à nos alliés.

<sup>1</sup> The third month of the Republican calendar, — Nov. 21 to Dec. 20.

Soldats, lorsque tout ce qui est nécessaire pour assurer le bonheur et la prospérité de notre patrie sera accompli, je vous ramènerai en France; là vous serez l'objet de mes plus tendres sollicitudes. Mon peuple vous reverra avec joie, et il vous suffira de dire: J'étais à la bataille d'Austerlitz, pour que l'on vous réponde: Voilà un brave!

NAPOLÉON.

3. *Translate into French:* When the soldiers of Napoleon say, "We were at the battle of Austerlitz," the people look upon them with joy and say, "Behold brave men!"

## GERMAN.

1. Tell what you have done in the study of German,— the time spent, the authors read, and so on.

2. *Translate into idiomatic English:*

Ein alter Mann ging einmal an einer Krücke<sup>1</sup> des Weges dahin und weil er sehr arm war, fühlte er traurig und wünschte zu sterben. Er warf seine Krücke von sich, legte sich auf die Erde und rief mit lauter Stimme: "O Tod, komme doch und errette mich von meinem Elend!" Da stand auf einmal der Tod vor ihm, eine Sense in seiner knöchernen Hand, und fragte ihn mit heiserer Stimme: "Mein Freund, was willst Du von mir, dass Du mich so laut rufst? Hier bin ich." "O," sagte der alte Mann, indem ihm die Zähne klapperten, "meine Krücke ist mir auf den Boden gefallen. Willst Du so gut sein und sie mir wieder geben?" Der Tod that es und verschwand.

<sup>1</sup> Crutch.

3. *Translate into German:*

Do you think that the old man felt (was) sad?

He certainly was sad, because he wished to die.

"Is that you?" "Yes, sir, it is I. What do you wish?"

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sachusetts State Normal Schools,  
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## II. MATHEMATICS.

The candidate will take the three subjects. Number of questions in all to be answered, eight. The full work is wanted. Time allowed for the entire paper, two hours.

### ARITHMETIC.

*Take either 1 or 2.*

1. The owner of  $\frac{3}{11}$  of a mine sold  $\frac{9}{10}$  of his share of the mine for \$40,500. At the same rate, what should he who owns  $\frac{2}{3}$  of the same mine get for  $\frac{5}{8}$  of his share?

2. When it is noon by clock time (not standard time) in Boston, longitude  $71^{\circ} 3' 30''$  W., what is the clock time in San Francisco, longitude  $122^{\circ} 26' 15''$  W.?

*Take either 3 or 4.*

3. Teas at 59 cents, 65 cents and 76 cents per pound respectively are mixed in equal quantities and sold at \$1 per pound. Find the gain per cent.

4 June 12, 1897, Richard Doe bought of John Doe, at the latter's store in Boston, 3 yds. silk @ \$1.45;  $2\frac{1}{2}$  yds. lining @ 20 cts.; 3 prs. kid gloves @ \$1.25; 30 buttons @ 25 cts. a dozen;  $\frac{1}{2}$  doz. handkerchiefs @ 25 cts. a piece; 1 hat for \$3.00. A discount of 5 per cent. was allowed on the amount of the purchase.

Make out an itemized bill and receipt it in full.

### ALGEBRA.

*Take either 1 or 2.*

1. Indicate algebraically all the operations to be performed in the following and then simplify the expression thus obtained: —

Multiply the sum of  $a$  and  $b$  by  $a$ , diminish this product by the square of the excess of  $a$  over  $b$ , divide the remainder by one half the sum of  $a$  and  $b$ , and subtract the quotient thus obtained from  $2b$ .

2. Reduce  $\frac{2x^2 - 3x - 2}{5x^2 - 7x - 6}$  to its lowest terms.

*Take either 3 or 4.*

3. A number is divided by  $d$ , and the sum of the dividend, the divisor and the quotient is  $b$ . What is this number? Find the number when  $d=12$  and  $b=129$ .

4. A certain principal  $p$ , when put at interest at  $r$  per cent. for  $t$  years, yields an amount  $a$ .

(a) Write the formula for  $a$ .

(b) From this formula find  $t$ .

(c) Express in words the truth expressed in the formula for  $t$  (that is, translate the formula into a rule).

(d) With the aid of the formula for  $t$ , find for what time a principal of \$480 must be put at interest at 5 per cent. to yield an amount of \$566.40?

*Take either 5 or 6.*

5. There are two stations 12 miles apart. Two persons start from these stations at the same time and walk towards each other until they meet, one at the rate of 3 miles an hour and the other at the rate of 4 miles an hour. How far is it from the place of meeting to the *nearer* station?

(a) Frame an equation, but do not solve it, using but one unknown quantity.

(b) Frame equations, but do not solve them, using two unknown quantities.

In both (a) and (b), let  $x$  represent the distance in miles to the nearer station.

6. Solve the equation  $6(x - \frac{1}{2})(x + \frac{1}{3}) = 0$

## GEOMETRY.

*Take either 1 or 2.*

1. A B is a given straight line, and C and D are two points outside of A B. There is a point E in A B that is equally distant from C and D.

(a) Tell how E may be located by construction.

(b) Prove that C E = D E.

2. Select a point X in the base B C of an isosceles triangle A B C such that a perpendicular to B C erected at X shall cut the side A B at any point Y and meet the side A C produced at Z. Prove that the triangle A Y Z is isosceles.

*Take either 3 or 4.*

3. A line D E dividing the two sides A B and A C of the triangle A B C proportionally is parallel to B C.

4. In the right triangle  $A B C$ , let fall a perpendicular from the vertex of the right angle  $B$  to the point  $D$  upon the hypotenuse  $A C$ .

- (a) Compare the three triangles thus obtained.
- (b)  $A B$  and  $B C$  are mean proportionals between what respectively?
- (c) Consequently the squares of  $A B$  and  $B C$  equal what respectively?
- (d) Adding the two equations thus obtained and simplifying, what equation results?
- (e) What proposition may be inferred from this resulting equation?

*Take either 5 or 6.*

5. Two tangents drawn from the same point to a circumference compare how with each other? Prove the truth of your answer.

6. Let  $a$  represent the altitude of an equilateral triangle and  $x$  one of its sides.

- (a) Find  $x$  in terms of  $a$ .
- (b) Translate the formula for  $x$  into a rule for solving all cases like the one given
- (c) Apply this rule to finding the side of an equilateral triangle whose altitude is 20.

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### III. HISTORY AND GEOGRAPHY.

Take pains with your English. Time allowed for this paper, one hour.

1. If you have done any collateral reading in connection with your study of United States history, or have studied the history of any other country, make a statement to that effect, mentioning the books used, the extent of your work, and so on.

*Take 2, 3, 4 or 5.*

#### 2. AMERICA BEFORE 1492.

(a) Its inhabitants and their various degrees of civilization.

(b) The Northmen, — who they were, where they settled and in what century, and the country explored by them.

(c) Why the discovery of America is more commonly attributed to Columbus than to the Northmen.

(d) Trade and trade routes between Europe and Asia, and what they had to do with the discovery of America by Columbus.

(e) Considerations that led Columbus to plan his great voyage in 1492.

#### 3. SOME CAUSES OF THE REVOLUTION.

(a) Writs of Assistance, — what they authorized and for what purpose.

(b) The Stamp Act, — its nature and object, and the great principle that it violated.

(c) The imposition of duties by England on certain articles, including tea, and why the colonists objected thereto.

(d) Conflicting views in England about the foregoing measures and the view that finally prevailed.

(e) The attitude of the colonists towards these measures, and how they showed this attitude before the war began.

**4. THE CONSTITUTION OF THE UNITED STATES.**

(a) Two or three important respects in which the government of the country from the Revolution down to 1789 was weak and unsatisfactory.

(b) How the Constitution remedied these defects.

(c) The departments of government established by the Constitution, with the function of each.

(d) A few things that Congress can constitutionally do and a few things that Congress cannot constitutionally do.

(e) Illustrations to show the exercise of national, of State and of town authority in the same community or side by side.

**5. THE CIVIL WAR.**

(a) The causes that brought it on.

(b) The blockade of the southern ports,—its object, extent and success.

(c) The importance of the Mississippi to each side, the struggle for its possession, and the final event that settled that struggle in favor of the North.

(d) Sherman's march to the sea and what was accomplished or demonstrated by it.

(e) Some of the things settled by the war.



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#### IV. SCIENCES.

Take pains with the quality of your work, aiming for good English as well as for intelligent and correct statements. Time allowed for the entire paper, two hours.

##### PHYSICAL GEOGRAPHY.

*Take 1, 2 or 3.*

1. Compare the northern and the southern parts of the Atlantic Coast in respect to (*a*) formation, (*b*) degree of irregularity, (*c*) number of important bays (estuaries), (*d*) importance to trade, (*e*) prevalence of cities, and (*f*) beauty.

2. Describe the plains of India as to (*a*) formation, (*b*) drainage, (*c*) climate, (*d*) fertility, (*e*) vegetation, (*f*) population, and (*g*) commercial importance.

3. Write about water under the following heads:—

(*a*) Evaporation, — definition, form of water that results, usefulness of the process, effect on the temperature of the atmosphere.

(*b*) Condensation, — definition, forms of water that result, usefulness of the process, effect on the temperature of the atmosphere.

(*c*) Some effects of the action of water, in its various forms, upon the surface of the earth.

##### PHYSIOLOGY.

*Take either 1 or 2.*

1. Write about the organs of respiration under the following heads:—

(*a*) What they are, — their various parts and divisions.

(*b*) The mechanism of breathing, — particularly the part played by the ribs and diaphragm.

- (c) The importance of pure air in breathing.
- (d) How the air that issues from the lungs varies from that which enters them.

2. Write about the eye under the following heads : —

- (a) Its coats, humors, lens, etc., with a sectional diagram, if possible, to show their relative positions.
- (b) What takes place when we *see* an object.
- (c) How the eye accommodates itself to light and distance.
- (d) Two or three important rules to be observed in using the eyes.

## PHYSICS.

1. State whether in your study of physics you have performed experiments and kept a notebook; and if so, to what extent.

*Take 2, 3 or 4.*

2. Discuss the subject of energy under the following heads, giving with each statement of principle some illustration to show what you mean by it : —

- (a) Definition of energy.
- (c) Transformation of energy.
- (b) Forms of energy.
- (d) Conservation of energy.

3. Write about light under the following heads, drawing a diagram in any case in which it will make your meaning more plain : —

- (a) The difference between the reflection and the refraction of light.
- (b) The dispersion of light.
- (c) Optical instruments in which the principles of reflection or of refraction are applied, with a diagram of at least one of them.
- (d) Natural phenomena dependent upon or illustrating refraction or dispersion.

4. Write about electricity under the following heads, giving in each case the principles involved and naming some instrument or process in which the principles are applied : —

- (a) The production of electro-magnets.
- (b) The deflection of a magnetic needle by an electric current.
- (c) The decomposition of compounds by an electric current.
- (d) The production of induced currents.

## CHEMISTRY.

1. State whether in your study of chemistry you have performed experiments and kept a notebook; and if so, to what extent.

*Take 2, 3 or 4.*

2. Write about carbonic acid in accordance with the following plan: —

- (a) How it may be made and collected.
- (b) The chemical equation for the reaction.
- (c) Experiments to show some of its properties.
- (d) A method of showing its presence in air exhaled from the lungs.
- (e) The sources of the carbonic acid found in the air and the evenness of its distribution.

3. Write about flame under the following heads: —

- (a) The color, heat and product of combustion in the case of the hydrogen flame.
- (b) How the hydrogen flame may be made luminous.
- (c) The cause of the light in an ordinary gas or candle flame.
- (d) Why a chimney is needed for a kerosene lamp.
- (e) The effect of thrusting a sheet of wire gauze into a gas or candle flame as if to cut it off and the explanation of that effect.

4. To dilute nitric acid add slowly a somewhat dilute solution of caustic potash (potassium hydroxide).

- (a) How may the excess of either at any time be determined, and how may it be known when neither is in excess?
- (b) Symbolize the change that takes place, *i.e.*, write the chemical equation for it.
- (c) Show from this experiment one or two general characteristics of an acid, a base and a salt.
- (d) Compare the symbol of potassium nitrate with that of nitric acid, and with this comparison in mind define a nitrate and a salt.
- (e) Write symbols for the nitrates of silver and sodium; also for the nitrates of copper and zinc.

## BOTANY.

1. To what extent has your study of botany been objective? Have you examined structures, performed experiments, made analyses, collected specimens, kept a notebook, etc.?

*Take 2, 3 or 4.*

2. Explain the italicized botanical terms in the following uses, illustrating with diagrams where they are helpful:—

- |                                  |                               |
|----------------------------------|-------------------------------|
| 1. A <i>dicotyledonous</i> seed. | 6. A <i>complete</i> flower.  |
| 2. An <i>adventitious</i> bud.   | 7. <i>Hypogynous</i> stamens. |
| 3. A <i>dioecious</i> plant.     | 8. A <i>superior</i> ovary.   |
| 4. An <i>odd-pinnate</i> leaf.   | 9. A <i>dehiscent</i> fruit.  |
| 5. <i>Verticillate</i> leaves.   | 10. An <i>exogenous</i> stem. |

3. Describe in botanical terms the flower, fruit or seed vessel submitted to you by the examiner. Make two or three sketches, sections or diagrams to show facts about the specimen.

4. The essential organs of flowering plants:—

- (a) Stamens,—their structure and purpose.
- (b) Pistils,—their structure and purpose.
- (c) Exceptions to their association in the same flower.
- (d) Self-fertilization,—what it is and how it is often defeated.
- (e) Cross-fertilization,—what it is and various agents that promote it.

Examination for Admission to the Massachusetts State Normal Schools,  
June 24 and 25, 1897.

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## V. DRAWING AND MUSIC.

The candidate will take both Drawing and Music. Time for the entire paper, one hour.

### DRAWING.

1. Make an accurate drawing of an equilateral triangle three inches on a side. Suppose this to represent the outline of a window frame three feet on each side. Draw to scale lines to represent the frame as three inches wide, and add  $\frac{3}{4}$ -inch sash lines dividing the opening into four equal and similar panes. Measure and state as nearly as possible the actual size of one of the panes.

2. Make a drawing of a twig with at least two leaves. Draw from the object.

*Take either 3 or 4.*

3. Sketch a book, from the object, below the level of the eye and turned at an angle.

4. Sketch some part of the room in which you are sitting,—a window, a door, a corner of the room, a desk or chair.

*Take either 5 or 6.*

5. Draw a simple rosette from memory.

6. Make a simple design for a border (such as may be found among the advertisements in magazines), using one of the leaves already sketched as a conventional unit.

## MUSIC.

1. Do you read music or sing or play a musical instrument? Give some account of such musical training as you may have received.

*Take either 2 or 3.*

2. Make a diagram of the music ladder, representing the steps and half steps, the pitch names, the scale names and the syllables for the major scale.

3. Give (*a*) the signature, (*b*) the key, (*c*) the measure, (*d*) the scale names of the notes in order, and (*e*) the pitch names of the notes in order of the following:—



Examination for Admission to the Massachusetts State Normal Schools,  
September 7 and 8, 1897.

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## I. LANGUAGES.

The candidate will take English and *one only* of the remaining languages,— Latin, French and German. *Let careful attention be given to spelling, punctuation, capitalization, syntax, paragraphing and idiom.* Time for the entire paper, two hours.

### ENGLISH.

#### *Reading and Practice.*

1. Tell what books of the following list you have read: Shakespeare's *As You Like It*; Defoe's *History of the Plague in London*; Irving's *Tales of a Traveller*; Hawthorne's *Twice-Told Tales*; Longfellow's *Evangeline*; George Eliot's *Silas Marner*.

2. Write briefly on *any two subjects* selected from the list that follows. The point here is not the extent of your knowledge about the selected subjects so much as your ability to say a few things about them in a simple, clear and correct way.

(a) Either of the following:

*As You Like It*,— whether you like it or not, and why.  
The story of Rosalind.

(b) *The History of the Plague in London*,— why people have been deceived as to its historical character, why it has a place in literature, etc.

(c) Any one of the *Tales of a Traveller*.

(d) Either of the following:

Little Annie's Ramble.  
A Rill from the Town Pump.

(e) Either of the following:

The historical and geographical elements in *Evangeline*.  
*Evangeline* as a Sister of Mercy.

(f) *Silas Marner's Gold*,— the theft of it, his consolation during its loss, and his final recovery of it.

If the candidate, instead of writing as directed, offers an exercise book containing compositions or other written work done in connection with the reading of books from the prescribed list, and properly certified by the teacher, let the fact be mentioned under this number.

*Study and Practice.*

3. Tell what books of the following list you have critically studied: Shakespeare's *Merchant of Venice*; Burke's *Speech on Conciliation with America*; Scott's *Marmion*; Macaulay's *Life of Samuel Johnson*.

4. Comment on *one only* of the passages (a), (b), (c) and (d) that follow, limiting yourself to the points suggested:—

- (a) Mislike me not for my complexion,  
The shadow'd livery of the burnish'd sun,  
To whom I am a neighbour, and near bred.  
Bring me the fairest creature northward born,  
Where Phœbus' fire scarce thaws the icicles,  
And let us make incision for your love,  
To prove whose blood is reddest, his or mine.  
I tell thee, lady, this aspect of mine  
Hath fear'd the valiant: by my love I swear,  
The best regarded virgins of our clime  
Have lov'd it too. I would not change this hue,  
Except to steal your thoughts, my gentle queen.

Points to be considered:

- (1) The speaker's part in the play.
- (2) The meaning of *shadow'd livery*, *fear'd the valiant*, *steal your thoughts*.
- (3) The significance of the speaker's proving his blood the *reddest*.
- (4) Shakespeare's use of the superlative.
- (5) The syntax of *livery* (its case and the reason for it).
- (6) The words to which *his* and *it* refer respectively.
- (7) The scanning of the first line (the feet and syllables to be properly marked).

(b) Either of the following:

- (1) Show what is meant by each of the six capital sources in the following passage from Burke: "Then, sir, from these six capital sources of *descent*, of *form of government*, of *religion* in the northern provinces, of *manners* in the southern, of *education*, of the *remoteness of situation* from the first mover of government,—from all these causes a fierce spirit of liberty has grown up."
- (2) Show what Burke means by each of the following objections urged by him against the use of force with America: Its *temporary* nature, its *uncertainty*, its *impairment* of the object, and the absence of *experience* to favor it.



- (c) On the earl's cheek the flush of rage  
 O'ercame the ashen hue of age;  
 Fierce he broke forth, — "And darest thou then  
 To beard the lion in his den,  
     The Douglas in his hall?  
 And hopest thou hence unscathed to go? —  
 No, by Saint Bride of Bothwell, no!  
 Up, drawbridge, grooms — what, warder, ho!  
     Let the portecullis fall."

Points to be considered:

- (1) The cause of the earl's wrath.
- (2) Justify the use of *o'ercame* and *ashen*.
- (3) What is it to *beard* the lion?
- (4) What act in the present case is described as bearding the lion?
- (5) More about the *lion* and the *den*.
- (6) *Saint Bride of Bothwell*.
- (7) The *drawbridge*, the *warder* and the *portecullis*.
- (8) What part of speech is *up*, and why?
- (9) The object of the earl's orders, and whether that object was gained or not.

(d) Write about Macaulay's *Life of Samuel Johnson*, dealing with any phase of the theme at your discretion and in sympathy with such method of study as you may have adopted, or getting your suggestions from such heads as the following: The work for which the life was originally written; why it has survived the fate of ordinary reviews; what qualities in Macaulay's picture of Johnson you like or are impressed by, with reasons for your view; whether liking the picture in this case is liking the person depicted, with reasons for your view; another famous life of Johnson, and one or two respects in which it differs from Macaulay's; two or three characteristics of Macaulay's English; and so on.

## LATIN.

1. What Latin authors or works have you studied, and how much of each have you read?

2. Take either (a) or (b), but not both.

(a) *How the Spartans prepared themselves for the battle of Thermopylae.*

*Translate into idiomatic English:*

Dum haec geruntur, Graeci Persas exspectabant ad Thermopylas. Erant Spartani trecenti, et socii ad quadringentos. His praeeerat Leonidas rex Spartanorum. Interim Xerxes speculatorem misit, qui et numerum eorum, et quid facerent, exploraret. Ubi ad murum accessit, nonnullos e Graecis vidit: quorum alii gymnasticis exercitationibus se delectabant, alii comam pectebant. Reversus, Xerxi cuncta quae viderat renuntiavit.

Quibus auditis, Xerxes ad se Demaratum, transfugam ex Spartanis, vocavit, cognoscere ex eo cupiens quid esset quod facerent Spartani. Cui Demaratus, "Adsunt hi viri," inquit, "nobiscum pugnaturi ut impedian quominus intremus, et ad hoc se comparant. Hic enim apud illos mos est: quando periculum adituri sunt, tunc capita comunt. Si hosce, et eos qui Spartae manent, subegeris, nullus alius hominum populus est, qui adversus te, Rex, manus tollere audeat. Nunc enim cum regno et populo inter Graecos praeclarissimo tibi pugnandum est et cum viris fortissimis."

*Translate into Latin:* Spies are sent to find out what the Spartans are doing. They report that it is a custom with the Spartans, when they are about to fight, to comb their hair.

(b) *Dido's banquet to Aeneas, and how she entertained her guest.*

*Translate into idiomatic English:*

Cithara crinitus Iopas  
personat aurata, docuit quem maximus Atlas.  
Hic canit errantem lunam solisque labores;  
unde hominum genus et pecudes; unde imber et ignes;  
Arcturum pluviasque Hyadas geminosque Triones;  
quid tantum oceano properent se tingere soles  
hiberni, vel quae tardis mora noctibus obstet.  
Ingeminant plausu Tyrii, Troesque sequuntur.  
Nec non et vario noctem sermone trahebat  
infelix Dido, longumque bibebat amorem,  
multa super Priamo rogitans, super Hectore multa;  
nunc quibus Aurorae venisset filius armis,  
nunc quales Diomedis equi, nunc quantus Achilles.  
"Immo age, et a prima dic, hospes, origine nobis  
insidias," inquit, "Danaum, casusque tuorum,  
erroresque tuos; nam te jam septima portat  
omnibus errantem terris et fluctibus aestas.

## FRENCH.

1. Tell what you have done in the study of French, — the time spent, the authors read, and so on.

2. *Translate into idiomatic English:*

### OPINION DE JEFFERSON SUR LE PEUPLE FRANÇAIS.

Je ne puis quitter ce grand et bon pays sans exprimer mon opinion sur la supériorité de son caractère parmi toutes les nations de la terre. Je n'ai jamais connu de gens plus bienveillants, ni ayant plus de chaleur et de dévouement dans leurs amitiés choisies. Leur bonté pour les étrangers est incomparable, et l'hospitalité de Paris surpasse tout ce que j'avais imaginé de praticable dans une grand cité. Leurs capacités, aussi, dans les sciences, le caractère communicatif de leurs savants, la politesse, la facilité, et la vivacité de leur conversation, donne un charme à leur société qu'on ne trouve nulle part ailleurs. Dans une comparaison avec les autres peuples,

nous pouvons donner un aperçu de leur primauté, ce qui fut dit au sujet de Thémistocle après la bataille de Salamis. Chaque général vota pour lui-même la première récompense de valeur, et la seconde pour Thémistocle. Ainsi si on demandait à un voyageur de quelque pays que ce fût: “ Dans quel pays sur la terre préféreriez-vous vivre?” “ Certainement dans le mien, où sont tous mes amis, mes parents, et les plus douces affections et les souvenirs de mon enfance et de toute ma vie.” “ Quel serait votre second choix?” “ La France.”

## GERMAN.

1. Tell what you have done in the study of German,— the time spent, the books read, and so on.

2. *Translate into idiomatic English:*

Jeden Sommer brachte der Kaiser, seiner Gesundheit wegen, einige Wochen in Ems<sup>1</sup> zu. Die Kinder da kannten den freundlichen Herrn sehr gut, und freuten sich immer lange vorher auf seine Ankunft. Als er nach dem französischen Kriege einmal wieder in Ems war, stand eine Schar fröhlicher Knaben vor dem Fenster eines Ladens, wo viele Bilder ausgestellt waren. Sie betrachteten mit grosser Aufmerksamkeit die Bilder der berühmten Helden aus dem letzten Kriege, und hielten Rat, welches Bild das wünschenswerteste sei. Endlich rief ein kleiner Knabe: “Ich werde mir den Kaiser kaufen!” Sogleich riefen die anderen: “Ja, ja, den Kaiser wollen wir kaufen!” Hinter ihnen aber stand ein alter Herr, der unbemerkt dem Gespräche zugehört hatte. Es war der Kaiser selbst. Freundlich trat er heran und sagte: “Kommt mit, ich will euch den Kaiser kaufen,” führte sie in den Laden und kaufte jedem sein Bild.

<sup>1</sup> A health resort in Prussia.

Examination for Admission to the Massachusetts State Normal Schools,  
September 7 and 8, 1897.

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## II. MATHEMATICS.

The candidate will take the three subjects. Number of questions in all to be answered, eight. The full work is wanted. Time allowed for the entire paper, two hours.

### ARITHMETIC.

*Take either 1 or 2.*

1. (a) If 5 is added to both terms of the fraction  $\frac{5}{7}$ , is the fraction increased or diminished, and by how much?

(b) If 5 is subtracted from both terms of the fraction  $\frac{5}{7}$ , is the fraction increased or diminished, and by how much?

2. Make a diagram to any convenient scale of a piece of paper that may be so folded as to cover exactly the six faces of a brick  $8 \times 4 \times 2$  inches. Indicate the parts respectively of the paper designed to cover the several faces, the dimensions of these parts, and their aggregate surface in square feet.

*Take either 3 or 4.*

3. One fourth per cent of my money is in my pocket,  $6\frac{1}{4}$  per cent is in the bank, and the rest, amounting to \$18,700, is invested in real estate. How much is in my pocket, and how much is in the bank?

4. If 400 metres equal  $\frac{1}{4}$  of a mile, how many square metres are there in  $\frac{1}{4}$  of an acre?

### ALGEBRA.

*Take either 1 or 2.*

1. Factor the following and determine by inspection their greatest common divisor:—

(a)  $ax^2 - 6ax + 9a.$

(b)  $ax^3 - 27a.$

(c)  $3ax^2 - 27a.$

(d)  $abx - acx - 3ab + 3ac.$

2. Simplify the following: —

$$\frac{x+y}{(y-z)(z-x)} + \frac{y+z}{(x-y)(z-x)} + \frac{z+x}{(x-y)(y-z)}$$

*Take either 3 or 4.*

3. One man can do a piece of work in  $a$  days and another man the same piece in  $b$  days: —

- (a) How long will it take them if they both work together?
- (b) Translate the formula thus obtained into a rule.
- (c) Apply the rule to a case in which one man can do the work in 10 days and another man in half that time.

4. A rectangular garden is  $a$  feet long and  $b$  feet wide. Around this garden, on the outside, but close to it, there is a walk whose width is  $\frac{a}{8}$  feet. Express in terms of  $a$  and  $b$  the following: —

- (a) The perimeter of the garden.
- (b) The outer perimeter of the walk.
- (c) The diagonal of the garden.
- (d) The area of the walk.

*Take either 5 or 6.*

5. Find a fraction such that if 1 is added to its numerator the value of the fraction becomes 1, while if 1 is added to the denominator the numerator will need to be doubled that the value of the fraction may remain 1.

6. What number is greater than its square by  $\frac{1}{4}$ ?

## GEOMETRY.

*Take either 1 or 2.*

1. A C is the base of the isosceles triangle A B C. Draw A E and C D perpendicular to the opposite sides. Prove that A E equals C D, giving authorities.

2. The sum of the interior angles of a polygon equals what? Give the proof. What is the sum when the number of sides of the polygon is the smallest possible? What is the sum when the number of sides is the largest possible?

*Take either 3 or 4.*

3. (a) In the proportion  $a:b::c:d$ , prove that the product of the extremes is equal to the product of the means, citing reasons for each step in the proof.

(b) If the means of a proportion are alike, what is the value of each mean expressed in terms of the extremes?

(c) What is the mean proportional between  $1\frac{1}{4}$  and 5?

4. Triangles A B C and D E F are mutually equiangular. Prove that they are similar.

*Take either 5 or 6.*

5. Prove that the opposite angles of a quadrilateral inscribed in a circle are supplementary.

6. Let there be a regular inscribed polygon whose number of sides is indefinitely increased.

(a) What are the limits respectively of its apothem, its perimeter and its area?

(b) What is the area of the polygon?

(c) What is the area of the circle?

(d) What is the principle under which, in this case, the area of the circle is inferred from that of the polygon?

Examination for Admission to the Massachusetts State Normal Schools,  
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### III. HISTORY AND GEOGRAPHY.

Take pains with your English. Time allowed for this paper, one hour.

1. If you have done any collateral reading in connection with your study of United States history, or have studied the history of any other country, make a statement to that effect, mentioning the books used, the extent of your work, and so on.

#### 2. THE MISSISSIPPI RIVER.

(a) An account of the river,—the territory drained by it, its larger tributaries, its floods, and why they tend to increase, and its commercial importance.

(b) The foundation and extent of the French claim to the valley of the Mississippi, and how France aimed to strengthen that claim.

(c) How our country came into possession of the valley east of the river, and, later, of the valley west of the river.

(d) Why each side in the Civil War desired to control the river.

(e) Vicksburg,—its location, strategic importance, siege and fall.

#### 3. WASHINGTON'S ADMINISTRATION.

(a) Its financial policy,—who shaped it, how it dealt with the war debts of the Continental Congress and of the several States, and in what ways it strengthened the national government.

(b) Our relations with France,—what important events were taking place there, why France wanted aid from the United States, and Washington's policy in the matter.

(c) The Federalists,—what general policy they favored, their ablest leader and their final overthrow.

(*d*) The party that gradually developed in opposition to the Federalists,— what general policy they favored, their ablest leader and their final triumph.

(*e*) The invention of the cotton gin and some of the results that followed.

#### 4. TERRITORIAL EXPANSION.

Write about the acquisition of territory, from time to time, by the United States, the country from whom and the method by which each addition was acquired, the motives for acquirement, and, in a general way, the location and extent of each acquisition.

#### 5. ABRAHAM LINCOLN.

(*a*) His early life.

(*b*) His debate with Douglas.

(*c*) Two or three noteworthy facts in his career as President.

(*d*) His death.

(*e*) Some characteristics of him as a man.



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## IV. SCIENCES.

At the beginning of your paper tell briefly in what sciences you have done laboratory work, kept notebooks, etc., and to what extent. Under each science take one full number or topic only. Aim for good English as well as for correct statements. Time for the entire paper, two hours; for each topic, twenty-four minutes.

### PHYSICAL GEOGRAPHY.

*Take 1, 2 or 3.*

#### 1. Relief Forms.

(a) How the grander relief forms of North America compare with those of South America.

(b) How the rivers of South America are affected in length and size by its relief forms, with illustrations.

(c) Relief forms of the world,—some of the highest and some of the lowest.

#### 2. Rivers.

(a) The main stream,—what determines its location, length, size and winding character.

(b) The deposits,—their nature in the upper course, in the lower course and at the mouth; their quantity and what the quantity depends on; and the general effect of erosion on relief forms.

(c) How rivers are affected by the cutting down of forests, with reasons.

#### 3. Oceans.

(a) The tides,—their general cause, the number of high tides and low during the day, why the tides are higher at some times than at others, etc.

(b) Evaporation, — where it is most abundant, how it affects the density and weight of the water, and its general relation to the movement of ocean waters.

(c) The Gulf Stream, — what it is, its movement and course, the condition of its waters and its effect on climate.

## PHYSIOLOGY.

*Take 1, 2 or 3.*

### 1. The Digestive Process.

(a) The purpose of mastication, and how this purpose is helped or hindered.

(b) The general change that takes place in the stomach, and what tends to promote or thwart such change.

(c) The secretions discharged into the alimentary canal, the sources from which they come and their general effect on the food.

(d) How the digested food finally gets into the general circulation.

### 2. Physical Exercise.

(a) The processes that are stimulated when a muscular mechanism, as that of an arm, is exercised.

(b) The good effects of judicious exercise.

(c) The connection between the physical condition and the mental.

(d) Why vigorous exercise, mental or physical, is inadvisable immediately after a hearty meal.

### 3. The Effects of Alcoholic Drinks. Write upon this theme at discretion, either making your own points or getting suggestions from the following heads: —

(a) Muscular steadiness and endurance.

(b) Power of resistance to cold or disease.

(c) Power of the will.

(d) Comments on this statement: The evil effects of alcoholic drinks come not from their use but from their abuse.

## PHYSICS.

*Take 1, 2 or 3.*

- 1. Mechanics.** In each of the following cases show by a diagram, with distances and forces so distinctly marked as to make the solution clear, how a power of 50 pounds may be made to sustain a weight of 150 pounds:—

- (a) By means of a lever.
- (b) By means of a wheel and axle.
- (c) By means of a system of pulleys.
- (d) Upon an inclined plane.

**2. Pneumatics.**

- (a) The weight of the air and the cause of that weight.
- (b) The barometer and its uses.
- (c) Why the air rushes into the lungs when we inhale.
- (d) When an air pump is removing the air from a receiver, what is always the volume of the air that is left in the receiver, and what principle does this fact illustrate?

**3. Sound.**

- (a) Its production and transmission.
- (b) Principles concerning the tones of strings (pitch, quality and loudness).
- (c) One or two applications of these principles to musical instruments.
- (d) The principle of the telephone.

## CHEMISTRY.

*Take 1, 2 or 3.*

**1. Hydrogen.**

- (a) Its principal characteristics.
- (b) Its diffusive power, — what is meant by it, with an illustration.
- (c) The oxy-hydrogen blowpipe, — its principle, the heat produced, the product of the combustion and how its flame may be made luminous.
- (d) Explain the following statement, giving special attention to the italicized parts: —

*Hydrogen dioxide is very unstable, and so makes a good oxidizing agent; it is much used in dentistry and surgery as a germicide, and in such use has the merit of leaving no residue but water and the products of oxidation.*

## 2. Oxides of Nitrogen.

- (a) Give the symbols and names of the five oxides.
- (b) Compare these oxides with mixtures of the same elements in respect (1) to the number of possible oxides and the number of possible mixtures and (2) to the proportions of the elements in them.
- (c) The law of multiple proportions as illustrated by these oxides.
- (d) The characteristics of the best known mixture of nitrogen and oxygen as compared with those of any compound of the two.

## 3. Carbon.

- (a) Its allotropic forms,—what they are, with a test that shows how they are essentially the same thing.
- (b) The deoxidizing power of charcoal,—what is meant by it and under what condition it is exhibited.
- (c) The disinfecting power of charcoal,—the property of charcoal on which it depends, with an illustration of its effectiveness.
- (d) Let powdered bituminous coal be heated in an ignition tube and the gases collected over water. The general name of the gases collected, their combustibility and the products of their burning, the use made of such gases and the name of the residue in the tube.

## BOTANY.

*Take 1, 2 or 3.*

1. **Description of a Plant.** Describe in botanical terms some of the characteristics of the plant furnished you by the examiner, following the general order of these heads: (a) the stem; (b) the leaf; (c) the floral envelopes; (d) the essential organs.

## 2. Leaves.

- (a) The distinction between a simple leaf and a compound one, with sketches to show it.
- (b) Draw a petiolate, stipulate, ovate, feather-veined leaf, with a cordate base and a serrate margin.
- (c) Some peculiar forms or modifications of leaves.
- (d) The work of leaves with special reference to water, oxygen and carbonic acid.

### 3. The Pistil.

(a) The simple pistil,—the names and positions of its parts and how its plan or ideal structure answers to a leaf.

(b) The compound pistil,—its plan or ideal structure, how that plan aids in determining the number of its various parts, and how variations from such numbers (as when there is but one cell when the plan suggests five) may be explained.

(c) An inferior ovary and a superior one, with a term descriptive of the calyx in each case.

(d) The fruit,—what it is botanically and how it is distinguished from certain so-called fruits, as the strawberry, blackberry, etc.

Examination for Admission to the Massachusetts State Normal Schools,  
September 7 and 8, 1897.

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## V. DRAWING AND MUSIC.

The candidate will take both Drawing and Music. Time for the entire paper, one hour.

### DRAWING.

1. In the town square is a watering trough of granite made from a single block, six feet long, two feet three inches wide and one foot seven and one half inches thick. Make three views of this block, drawing to a scale of one inch to the foot. Make the dimensions on the drawing and state properly the scale.

2. Draw from the object a spray of some common plant.

*Take either 3 or 4.*

3. From an open book, a little below the level of the eye, make a truthful drawing which shall show one set of converging lines.

4. Sketch some object in the room in which you are sitting, as a desk, a chair, a cupboard, a mantel, a ventilator, or a window with plants.

*Take either 5 or 6.*

5. Draw from memory one of the following conventional ornamental units: an Egyptian lotus, a Greek anthemion, a Gothic fleur-de-lis.

6. Make a surface pattern for a piece of calico, using as a unit a conventional form of one of the leaves previously drawn.

## MUSIC.

1. Do you read music or sing or play a musical instrument? Give some account of such musical training as you may have received.

2. Deal with as many of these points as you can in connection with the music passage that follows:—

- (a) The clef, and its meaning.
- (b) The key, and why so called.
- (c) The significance of the two flats.
- (d) The names (letters), in order, of the upper notes.
- (e) The measure, and why so called.
- (f) The values of the rests in the first measure.







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# AN ABSTRACT

OF THE

SCHOOL RETURNS MADE BY THE SCHOOL COMMITTEES  
OF THE SEVERAL TOWNS AND CITIES IN THE  
COMMONWEALTH

FOR

THE SCHOOL YEAR, 1896-97.

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## BARNSTABLE COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1896.	No. of Public Schools.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Barnstable,	4,055	\$3,995,290	24	628	395	815	—	111	359	677	629	.93	27
Bourne, .	1,580	1,808,500	11	267	176	350	13	46	187	295	275	.93	12
Brewster, .	901	554,835	5	158	97	162	—	20	94	128	113	.88	6
Chatham, .	1,809	836,333	12	268	187	298	2	56	166	289	256	.88	12
Dennis, .	2,345	1,130,422	15	362	271	470	1	92	269	404	380	.94	15
Eastham, .	476	287,320	3	68	44	72	—	2	46	63	57	.90	3
Falmouth,	2,655	6,519,308	15	398	275	469	—	65	229	411	374	.91	17
Harwich, .	2,532	1,115,655	12	341	230	366	2	38	219	307	276	.90	12
Mashpee, .	330	199,610	3	56	38	74	3	2	37	56	51	.92	3
Orleans, .	1,198	537,138	4	163	103	184	—	15	103	159	145	.91	5
Provincetown, .	4,555	1,922,128	21	780	462	859	—	89	475	745	698	.94	24
Sandwich,	1,580	921,875	9	243	145	276	4	30	133	229	212	.93	10
Truro, .	815	327,605	6	159	107	187	—	17	105	147	131	.89	6
Wellfleet, .	968	635,603	6	150	75	160	1	24	73	137	126	.91	6
Yarmouth,	1,655	1,603,875	9	223	123	258	—	48	113	208	194	.93	9
Totals,	27,654	\$22,395,497	155	4,264	2,728	5,000	26	655	2,608	4,255	3,917	.92	167

## BERKSHIRE COUNTY.

Adams, .	7,837	\$4,098,315	38	1,893	1,063	1,935	—	153	1,166	1,699	1,596	.94	45
Alford, .	280	176,887	2	33	20	42	—	6	26	24	20	.83	2

# SCHOOL RETURNS.

iii

Bocket, . . .	888	411,016	8	172	112	188	4	3	111	135	122	.91	8
Cheshire, . .	1,176	665,458	8	178	110	219	3	25	128	176	163	.92	8
Clarksburg, .	1,009	219,581	5	237	151	242	3	6	130	136	121	.89	5
Dalton, . . .	3,210	2,388,125	20	574	368	686	4	57	402	593	562	.95	23
Egremont, . .	836	434,099	4	120	85	124	2	6	87	92	83	.90	4
Florida, . . .	425	150,969	4	90	58	103	3	11	58	73	63	.86	4
Great Barrington,	4,794	3,333,766	24	706	503	973	10	126	601	768	660	.86	27
Hancock, . . .	511	307,422	5	98	63	108	2	9	58	80	70	.88	5
Hinsdale, . .	1,650	672,413	11	294	220	339	8	29	220	266	243	.92	11
Lanesborough, .	848	471,395	6	180	122	181	1	20	122	123	100	.81	6
Lee, . . .	4,066	1,714,989	14	772	438	643	8	105	335	550	508	.92	17
Lenox, . . .	2,872	3,444,988	15	554	336	670	4	46	424	509	488	.88	16
Monterey, . .	464	229,699	6	72	52	107	1	15	50	81	71	.88	6
Mt. Washington,	136	81,768	2	25	13	25	3	1	12	21	17	.81	2
New Ashford, .	116	55,605	1	19	14	22	-	3	14	19	15	.79	1
New Marlborough,	1,288	514,187	9	214	124	257	2	16	146	185	156	.84	9
North Adams, .	19,135	7,809,337	58	3,558	2,170	3,514	33	275	1,465	2,385	2,208	.92	79
Otis, . . .	518	199,163	6	65	56	83	2	6	55	72	62	.86	6
Peru, . . .	305	116,102	4	70	46	60	3	-	46	42	37	.88	4
Pittsfield, . .	20,461	14,372,526	93	3,861	2,207	4,287	15	306	2,343	3,472	3,206	.92	104
Richmond, . .	701	327,800	6	143	84	138	1	8	81	104	90	.86	6
Sandisfield, .	802	376,277	10	137	85	167	1	20	95	125	107	.86	10
Savoy, . . .	504	154,380	6	87	50	99	1	6	50	82	69	.84	6
Sheffield, . .	1,897	869,800	11	308	179	356	10	35	207	275	240	.87	12
Stockbridge, .	2,077	3,063,531	11	402	255	421	-	46	255	345	325	.94	12
Tyringham, . .	363	213,715	5	54	48	58	-	7	32	48	40	.84	5
Washington, .	423	188,049	7	71	52	78	2	2	52	62	57	.92	7
West Stockbridge,	1,257	476,141	8	230	162	279	8	32	142	236	213	.90	9
Williamstown, .	4,887	2,744,346	25	678	426	955	2	123	519	700	643	.92	28
Windsor, . . .	556	183,422	7	70	45	84	4	1	45	69	63	.91	7
Totals, . . .	86,292	\$50,465,271	439	15,965	9,717	17,443	140	1,504	9,477	13,547	12,418	.92	494

## BOARD OF EDUCATION.

## BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'g wages per month of male teachers in Public Schools.	Av'g wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months. Days.	
Barnstable, .	8	23	8	7	\$73 55	\$40 93	204-10	8-15	-	1	3	104	Taxation.	10	\$1,000 00
Bourne, .	2	16	4	1	76 94	40 00	94-10	8-12	-	1	2	71	Taxation.	9-10	850 00
Brewster, .	1	5	1	3	60 00	40 00	42-10	8-10	-	1	2	47	Taxation.	8-10	510 00
Chatham, .	1	13	2	2	94 44	28 72	108	9	-	1	1	38	Taxation.	9	850 00
Dennis, .	8	10	3	3	70 00	35 55	122	8-2	-	2	2	89	Taxation.	{ 9 9	855 00 765 00
Eastham, .	-	4	1	1	-	34 00	27	9	-	-	-	-	-	-	-
Falmouth, .	4	13	7	2	72 50	48 50	188-15	9-5	-	1	3	71	Part tax.	9-15	1,350 00
Harwich, .	5	13	3	3	56 66	38 33	94	7-16	-	1	1	32	Taxation.	9-6	900 00
Mashpee, .	1	2	2	2	50 00	35 00	21	7	-	-	-	-	-	-	-
Orleans, .	1	4	3	3	95 00	40 00	35-15	8-19	-	1	2	58	Taxation.	9-10	917 50
Provincetown, .	2	25	2	2	113 16	31 33	191-11	9-2	-	1	3	75	Taxation.	9-5	1,200 00
Sandwich, .	2	15	4	3	101 93	37 05	76-15	8-11	-	1	2	42	Taxation.	9-10	968 41
Truro, .	-	8	3	2	-	37 88	54	9	-	-	-	-	-	-	-
Wellfleet, .	1	5	1	1	89 46	38 00	54	9	-	1	1	34	Taxation.	9-14	850 00
Yarmouth, .	5	10	1	1	74 41	37 50	81	9	-	1	1	35	Part tax.	9	1,000 00
Totals, .	41	166	45	35	\$74 79	\$37 42	1,345-6	8-13	-	13	23	696	-	9-6	\$12,015 91

## BERKSHIRE COUNTY — CONTINUED.

Adams, .	5	40	11	8	\$104 20	\$40 94	340	9-5	-	1	6	116	Taxation	9-15	\$1,466 71
Alford, .	-	3	-	-	-	24 00	17	8-10	-	-	-	-	-	-	-

# SCHOOL RETURNS.

v

Becket, . . .	1	12	2	1	44 00	26 00	54-15 72	6-16 9	-	1	1	23	Taxation.	-	9	-	504 00
Cheshire, . . .	-	8	1	1	-	35 50	36-5	7-3	-	-	-	-	-	-	-	-	-
Clarksburg, .	1	5	2	2	32 38	32 00	181	9-1	-	1	3	86	Taxation	-	10	-	1,200 00
Dalton, . . .	1	22	3	3	100 00	39 78	37	9-5	-	-	-	-	-	-	-	-	-
Egremont, . .	-	6	-	-	-	33 40	27	6-15	-	-	-	-	-	-	-	-	-
Florida, . . .	-	7	-	-	-	29 33	212-15	8-8	-	1	3	105	Taxation.	-	9-9	-	1,450 00
Great Barrington,	1	26	6	6	145 00	34 00	39	7-16	-	-	-	-	-	-	-	-	-
Hancock, . . .	1	6	1	-	34 00	26 85	99	9	-	1	1	29	Taxation.	-	9-5	-	600 00
Hinsdale, . .	1	10	-	-	64 84	21 20	33 80	7-16	-	-	-	-	-	-	-	-	-
Lanesborough, .	-	6	1	1	-	33 80	46-15	7-16	-	-	-	-	-	-	-	-	-
Lee, . . .	1	20	3	1	120 00	38 53	133-3	9-10	-	1	3	104	Taxation.	-	9-15	-	1,200 00
Lenox, . . .	1	15	1	-	110 00	35 46	144-5	9-6	-	1	2	82	Taxation.	-	10	-	1,100 00
Monterey, . .	1	6	1	-	24 00	23 20	43-15	7-6	-	-	-	-	-	-	-	-	-
Mt. Washington, .	-	3	-	-	-	24 00	15	7-10	-	-	-	-	-	-	-	-	-
New Ashford, . .	-	1	-	-	-	35 96	8-5	8-5	-	-	-	-	-	-	-	-	-
New Marlboro', .	-	15	2	2	-	26 15	78-15	8-15	-	-	-	-	-	-	-	-	-
North Adams, . .	7	72	19	16	116 00	48 70	562	9-16	-	1	6	171	Taxation.	-	10	-	2,000 00
Otis, . . .	1	8	-	-	20 00	24 66	39-10	6-11	-	-	-	-	-	-	-	-	-
Peru, . . .	-	6	-	-	-	20 00	30-7	7-10	-	-	-	-	-	-	-	-	-
Pittsfield, . . .	5	109	22	20	126 66	41 10	876-5	9-8	-	1	6	333	Taxation,	-	9-16	-	1,800 00
Richmond, . . .	-	8	1	1	-	25 00	52-10	8-15	-	-	-	-	-	-	-	-	-
Sandisfield, . .	-	11	1	-	21 72	20 72	74-10	7-9	-	-	-	-	-	-	-	-	-
Savoy, . . .	1	6	1	-	22 00	20 14	43-10	7-5	-	-	-	-	-	-	-	-	-
Sheffield, . . .	1	17	1	1	-	31 48	104-15	9-15	-	1	1	23	Taxation.	-	9-10	-	560 00
Stockbridge, . .	-	17	9	6	130 00	45 75	89	8-17	-	1	2	54	Taxation.	-	9-1	-	1,300 00
Tyringham, . .	-	5	1	1	-	25 00	38	7-12	-	-	-	-	-	-	-	-	-
Washington, . .	1	9	-	-	20 00	24 50	45-16	6-10	-	-	-	-	-	-	-	-	-
West Stockbridge,	2	8	3	2	46 00	35 33	77-10	9-13	-	-	-	-	-	-	-	-	-
Williamstown, . .	5	29	10	8	69 07	34 25	231-19	9-6	-	1	4	65	Taxation.	-	9-11	-	1,000 00
Windsor, . . .	-	12	-	-	-	23 93	43-10	6-4	-	-	-	-	-	-	-	-	-
Totals, . . .	39	528	102	80	\$84 95	\$36 40	3,894-15	8-17	-	12	38	1,191	-	-	9-11	\$14,180 71	

## BOARD OF EDUCATION.

## BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including wages of teachers, board, transportation, fuel, care of officers and schoolrooms, for the school year 1896-97.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Barnstable, . . .	\$13,850 00	\$1,350 00	\$246 50	\$1,166 65	\$1,799 84	\$100 86	\$25,894 16	\$220 30	\$746 51	\$43,923 96
Bourne, . . .	5,443 59	433 86	67 00	337 50	555 36	77 00	-	-	279 39	6,783 70
Brewster, . . .	2,509 71	115 36	65 00	163 05	474 26	518 44	-	167 00	-	3,456 02
Chatham, . . .	4,221 32	-	322 00	-	362 86	15 00	-	-	248 53	5,673 15
Dennis, . . .	6,500 00	-	175 00	499 34	487 13	15 00	-	-	594 06	8,270 53
Eastham, . . .	900 00	-	5 00	97 79	120 61	15 00	-	-	98 47	1,236 87
Falmouth, . .	12,224 58	2,496 00	124 00	1,400 00	916 20	42 95	-	-	60 00	14,767 73
Harwich, . . .	5,000 00	-	159 40	358 72	363 20	91 64	-	-	372 61	6,345 57
Mashpee, . . .	1,066 00	110 00	30 00	75 00	64 58	45 02	390 00	-	17 20	1,687 80
Orleans, . . .	3,301 26	816 68	1 67	130 44	458 01	40 00	-	83 99	82 21	4,097 58
Provincetown, .	10,500 00	-	60 00	600 00	996 28	731 88	2,600 00	-	642 96	16,131 12
Sandwich, . . .	4,579 11	253 50	30 65	337 50	360 97	73 69	-	-	179 33	5,561 25
Truro, . . .	1,700 00	-	106 00	-	307 94	18 00	-	-	172 57	2,304 51
Wellfleet, . . .	3,157 35	200 00	85 00	150 00	289 12	62 50	-	175 00	53 75	3,972 72
Yarmouth, . . .	4,750 00	659 20	-	242 87	250 00	49 00	-	43 00	74 50	5,409 37
Totals, . . .	\$79,702 92	\$6,434 60	\$1,477 22	\$5,558 86	\$7,806 36	\$1,886 98	\$28,884 16	\$689 29	\$3,622 09	\$129,621 88

## BERKSHIRE COUNTY — CONTINUED.

Adams, . . .	\$24,248 80	-	\$83 34	\$1,800 00	\$3,315 05	\$113 00	\$5,499 50	-	\$1,043 91	\$36,103 60
Alford, . . .	300 00	\$30 00	21 75	-	8 67	-	-	-	-	330 42

## SCHOOL RETURNS.

vii

Becket, . . .	1,300.00	32 00	201 63	96 32	-	-	-	62 98	1,692 93
Cheshire, . .	2,800 00	62 50	225 00	238 30	27 00	-	-	195 77	3,548 57
Clarksburg, .	1,350 37	78 50	-	113 33	8 85	-	-	120 39	1,671 44
Dalton, . . .	11,500 00	195 00	525 00	973 66	260 75	-	-	618 01	14,072 42
Egremont, . .	832 97	42 50	56 25	111 23	5 00	-	-	22 04	1,069 99
Florida, . . .	1,035 26	40 00	180 00	68 10	30 00	-	-	40 00	1,393 36
Gt. Barrington, .	12,184 35	250 00	-	1,176 02	374 70	13,000 00	\$730 81	-	27,715 88
Hancock, . . .	700 00	45 25	-	79 00	7 00	-	200 00	12 00	1,043 25
Hinsdale, . .	3,500 00	75 00	-	400 00	-	-	-	100 00	4,075 00
Lanesborough, .	1,800 00	46 25	-	218 41	55 78	-	-	106 90	2,227 34
Lee, . . . . .	8,921 15	300 00	-	753 71	466 42	-	210 66	80 52	10,732 46
Lenox, . . . .	8,145 00	300 00	-	798 76	43 15	-	764 72	151 58	10,203 21
Monterey, . . .	700 00	41 50	-	80 47	5 00	-	-	13 67	840 64
Mt. Washington, .	75 00	15 00	-	7 00	2 00	-	265 00	10 00	374 00
New Ashford, . .	200 00	58 00	-	39 35	9 85	-	-	-	307 20
New Marlboro', .	1,757 75	101 25	150 00	159 24	46 34	-	300 00	217 62	2,732 20
North Adams, . .	42,733 29	890 00	2,500 00	3,000 00	225 00	52,765 04	2,000 00	3,074 04	107,187 37
Otis, . . . . .	700 00	70 00	-	51 89	5 00	-	126 64	1 10	954 63
Peru, . . . . .	500 00	15 00	-	57 74	10 67	-	-	41 50	624 91
Pittsfield, . . .	56,354 30	825 00	2,250 00	6,899 45	2,373 34	143,352 01	1,507 25	2,290 66	216,352 01
Richmond, . . .	1,500 00	49 60	131 25	116 89	60 50	-	-	38 55	1,896 79
Sandisfield, . .	1,100 00	103 08	-	177 64	27 08	-	117 64	10 32	1,535 76
Savoy, . . . . .	700 00	31 00	-	48 29	8 00	-	-	5 95	793 24
Sheffield, . . .	3,450 00	93 25	225 00	250 00	200 00	-	103 84	-	4,322 09
Stockbridge, . .	7,387 25	150 00	500 00	875 24	280 15	-	-	680 94	9,873 58
Tyringham, . . .	600 00	25 00	-	92 51	-	-	-	68 42	785 93
Washington, . .	450 00	35 55	99 69	92 52	6 00	-	-	10 21	693 97
W. Stockbridge, .	3,650 00	60 00	187 50	158 31	33 01	-	-	52 22	4,141 04
Williamstown, . .	10,668 33	175 00	1,020 00	1,205 33	196 94	-	255 00	979 82	14,500 42
Windsor, . . . .	750 00	41 00	-	52 24	4 00	-	-	5 75	852 99
Totals, . . . .	\$212,393 82	\$4,351 32	\$10,051 32	\$21,714 67	\$4,884 53	\$214,616 55	\$6,581 56	\$10,054 87	\$484,648 64





### SCHOOL RETURNS.

[illegible]

## BOARD OF EDUCATION.

## BRISTOL COUNTY.

TOWNS.	Population—State Census, 1896.	Valuation—1896.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Acushnet, . . . . .	1,115	\$638,250	6	142	91	151	—	12	127	109	.86.	6
Attleborough, . . . . .	8,288	4,903,141	36	1,607	875	1,891	29	145	1,521	1,391	.91	46
Berkley, . . . . .	955	385,395	7	146	115	182	3	10	141	116	.82	7
Dartmouth, . . . . .	3,107	2,504,875	20	521	358	627	5	44	475	427	.90	21
Dighton, . . . . .	1,797	763,950	10	284	168	298	3	17	214	185	.86	10
Easton, . . . . .	4,452	4,614,446	22	841	556	1,070	69	81	542	789	.94	40
Fairhaven, . . . . .	3,338	2,221,997	14	526	344	626	1	40	388	419	.89	15
Fall River, . . . . .	89,203	69,286,496	231	18,801	11,096	15,162	164	706	11,371	10,374	.91	328
Freetown, . . . . .	1,405	812,149	7	178	152	224	1	6	186	155	.83	7
Mansfield, . . . . .	3,722	1,842,330	17	670	422	827	—	93	426	660	.93	18
New Bedford, . . . . .	55,251	56,281,117	169	10,055	5,872	8,298	—	699	4,622	6,098	.93	182
North Attleborough, . . . . .	6,576	3,827,664	32	1,219	755	1,485	8	165	809	1,203	.93	40
Norton, . . . . .	1,614	786,425	10	240	154	257	3	7	154	196	.88	10
Raynham, . . . . .	1,518	761,663	8	228	134	279	—	14	180	191	.90	8
Rehoboth, . . . . .	1,810	717,730	15	310	195	332	10	29	179	258	.87	15
Seekonk, . . . . .	1,465	916,010	8	281	163	281	—	7	162	181	.86	8
Somerset, . . . . .	1,983	1,047,339	10	344	185	388	8	24	199	335	.89	10
Swansea, . . . . .	1,627	863,732	11	239	156	264	4	21	209	190	.91	11
Taunton, . . . . .	27,115	19,391,895	91	4,857	2,866	4,288	—	362	2,576	3,619	.95	115
Westport, . . . . .	2,678	1,512,750	19	455	286	485	7	24	380	339	.89	19
Totals, . . . . .	219,019	\$174,079,354	743	41,944	24,943	37,415	315	2,506	29,402	27,047	.92	916

## SCHOOL RETURNS.

XI

## DUKES COUNTY.

Chilmark..	304	\$216,439	3	25	13	30	-	6	13	23	22	.96	3
Cottage City..	1,038	1,628,025	5	135	105	187	-	11	105	182	160	.88	8
Edgartown..	1,125	721,895	6	158	96	176	-	26	91	143	135	.94	6
Gay Head..	169	24,882	1	32	23	43	-	11	23	35	32	.91	1
Gosnold..	140	221,251	1	12	10	15	-	1	10	11	10	.90	1
Tisbury..	1,002	901,240	5	138	79	133	-	21	77	120	109	.90	5
West Tisbury..	460	389,232	3	48	31	72	2	12	35	49	43	.88	3
Totals,	4,238	\$4,103,014	24	548	357	656	2	88	354	563	511	.91	27

## BRISTOL COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'ge wages per month of male teachers in Public Schools.	A'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.	
Acushnet, .	4	5	—	—	\$38 60	\$36 00	52-10	8-15	—	1	4	—	Taxation.	9-17	\$1,400 00
Attleborough, .	4	42	22	11	87 50	40 33	333-9	9-10	—	—	—	153	—	—	—
Berkley, .	2	11	5	4	34 00	32 00	59-10	8-10	—	—	—	—	—	—	495 00
Dartmouth, .	6	24	3	3	52 92	29 43	180	9	—	3	3	65	Taxation.	{ 9 9	480 00
Dighton, .	—	16	3	1	—	36 00	87-5	8-14	—	—	—	—	—	—	465 00
Easton, .	5	41	7	6	89 00	42 00	214-10	9-15	—	1	4	—	Taxation.	9-15	1,500 00
Fairhaven, .	2	25	7	6	110 00	38 36	129-15	9-15	—	1	2	60	Taxation.	10	1,100 00
Fall River, .	19	326	37	36	144 12	51 20	2,302-10	9-19	—	1	18	666	Taxation.	10	3,000 00
Freetown, .	1	10	4	4	40 00	33 90	62-6	9	—	—	—	—	—	—	—
Mansfield, .	2	22	8	5	144 44	39 25	154	9-1	—	1	2	91	Taxation.	10	1,000 00
New Bedford, .	11	171	32	28	158 69	64 68	1,506-12	9-2	—	1	14	462	Taxation.	9-15	2,750 00
North Attleboro', .	1	53	27	15	142 50	44 46	283-9	9-6	—	1	4	104	Taxation.	9-12	1,425 00
Norton, .	—	17	8	4	—	36 60	90	9	—	—	—	—	—	—	—
Raynham, .	1	11	6	6	40 00	38 00	61-5	8-15	—	—	—	—	—	—	—
Rehoboth, .	—	19	4	—	—	29 57	115	7-13	—	—	—	—	—	—	—
Seekonk, .	1	9	5	1	40 00	34 00	71-10	8-18	—	—	—	—	—	—	—
Somerset, .	—	10	3	2	—	39 80	85-3	8-17	—	1	1	16	Taxation	9-19	700 00
Swansea, .	2	19	7	5	34 00	31 00	99	9	—	—	—	—	—	—	—
Taunton, .	12	103	28	27	124 78	53 86	799-10	9-10	—	1	9	309	Taxation.	10	2,000 00
Westport, .	3	20	2	1	51 25	28 38	156-10	8-11	—	1	1	29	Taxation.	9	596 25
Totals, .	76	954	218	165	\$109 33	\$48 75	6,843-14	9-4	1	13	62	2,086	—	9-12	\$16,911 25

## DUKES COUNTY — CONTINUED.

Chilmark, . .	1	4	-	-	\$20 00	\$28 83	19-10	6-10	-	-	-	-	-	-	-	-	-
Cottage City,	1	9	-	-	90 00	33 65	43-15	8-17	-	-	-	-	-	-	-	-	-
Edgartown . .	2	6	2	1	60 00	42 60	48	8	-	-	-	-	-	-	-	-	-
Gay Head, . .	1	-	-	-	38 00	-	8	9	-	-	-	-	-	-	-	-	-
Gosnold, . . .	-	1	1	1	-	40 00	9	9	-	-	-	-	-	-	-	-	-
Tisbury, . . .	1	4	1	1	70 00	41 50	35-7	8-17	-	-	-	-	-	-	-	-	-
West Tisbury,	1	4	1	1	35 00	38 67	25-17	8-12	-	-	-	-	-	-	-	-	-
Totals, . . .	7	28	5	4	\$53 28	\$40 51	189-9	7-17	-	-	3	4	-	-	91	-	\$1,800 00

## BRISTOL COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including wages of teachers, board, transportation, fuel, care of offices and school year 1896- 97.	Expense for trans- portation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent of it.	Expense of books, sta- tionery and school supplies.	Sundries (reports, cen- sus, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and per- manent improve- ments.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by tax- ation.
Acushnet, . . . . .	\$1,932 73	\$880 00	\$80 00	—	\$253 11	\$141 24	—	—	\$84 92	\$2,495 00
Attleborough, . . . . .	23,358 00	—	75 00	\$1,200 00	2,132 16	40 00	\$6,215 25	\$622 68	2,767 99	36,411 08
Berkley, . . . . .	1,600 00	—	89 15	—	117 53	7 95	—	39 83	43 31	1,897 77
Dartmouth, . . . . .	6,400 00	400 00	150 00	375 00	422 83	278 70	6,181 33	167 00	220 00	14,194 86
Dighton, . . . . .	4,100 00	—	—	200 00	232 40	16 00	800 00	50 00	702 80	6,101 20
Easton, . . . . .	16,730 37	1,564 00	150 00	1,300 00	723 56	1,124 94	—	—	842 80	20,371 67
Fairhaven, . . . . .	7,176 32	24 00	150 00	—	289 19	315 41	15,000 00	485 15	316 15	23,732 22
Fall River, . . . . .	227,475 08	923 50	2,366 12	3,300 00	15,598 11	2,639 38	33,282 93	13,797 27	—	298,458 89
Freetown, . . . . .	2,500 00	220 70	105 00	—	234 45	3 50	—	—	135 63	2,978 58
Mansfield, . . . . .	10,543 42	367 40	140 00	360 00	669 76	173 24	—	—	579 52	12,465 94
New Bedford, . . . . .	139,271 83	478 95	1,208 63	3,000 00	7,512 94	5,952 95	66,283 90	5,925 00	11,125 08	240,280 33
North Attleboro', . . . . .	21,399 84	—	150 00	1,500 00	1,741 69	1,062 86	691 08	—	932 02	27,477 49
Norton, . . . . .	2,750 00	—	—	300 00	270 49	33 50	—	—	287 90	3,949 50
Raynham, . . . . .	2,961 81	360 00	165 00	150 00	171 60	251 18	—	307 61	390 27	4,471 62
Rehoboth, . . . . .	3,500 00	45 00	120 00	—	163 06	39 05	—	381 76	114 27	4,027 76
Seekonk, . . . . .	2,000 00	102 60	90 00	—	201 85	14 60	—	91 38	133 39	2,439 84
Somerset, . . . . .	4,164 32	—	200 65	—	239 24	136 46	—	163 16	549 39	5,453 22
Swansea, . . . . .	3,799 90	—	22 00	100 00	354 97	43 85	—	93 00	—	4,413 72
Taunton, . . . . .	81,631 98	983 00	300 00	2,000 00	4,200 00	4,499 96	14,000 00	7,000 00	4,500 00	118,131 94
Westport, . . . . .	5,000 00	—	225 00	375 00	407 60	—	—	—	546 78	6,554 38
Totals, . . . . .	\$568,295 60	\$6,349 15	\$5,786 55	\$14,160 00	\$35,936 54	\$16,777 77	\$142,454 49	\$29,123 84	\$24,272 22	\$836,807 01

# SCHOOL RETURNS.

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## DUKES COUNTY — CONTINUED.

Chilmark, .	\$350 00	-	\$42 00	-	\$36 47	-	\$17 66	\$11 25	\$457 38
Cottage City, .	2,400 00	-	75 00	-	473 67	-	200 00	25 00	3,593 81
Edgartown, .	1,700 00	-	75 00	-	556 88	-	-	91 37	2,720 75
Gay Head, .	96 00	-	36 00	-	34 25	-	150 00	-	326 25
Gosnold, .	70 10	-	41 45	-	29 90	-	-	-	143 95
Tisbury, .	2,231 50	\$71 50	60 00	150 00	509 50	24 00	2,050 37	2 89	5,018 26
West Tisbury, .	725 00	-	20 00	150 00	124 35	-	-	-	1,019 35
Totals, .	\$7,562 60	\$71 50	\$349 45	\$750 00	\$1,765 02	\$304 14	\$2,418 03	\$130 51	\$13,279 75

## BRISTOL COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1897.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Acushnet, . . . . .	-	\$39 40	-	\$215 61	-	-	-	-	-	-	\$362 58	-
Attleborough, . . . . .	-	26,000 00	\$1,100 00	886 32	-	-	-	3	60	-	516 77	\$117 53
Berkley, . . . . .	-	-	-	129 37	-	-	-	-	-	-	158 39	-
Dartmouth, . . . . .	-	2,000 00	85 88	490 02	-	-	-	-	-	-	362 58	40 00
Dighton, . . . . .	-	-	-	-	-	-	-	-	-	-	-	-
Easton, . . . . .	-	100,000 00	5,036 50	675 95	-	-	-	1	12	\$200 00	212 58	-
Fairhaven, . . . . .	\$2,000 00	9,000 00	211 12	441 30	-	-	-	20	4,383	10,000 00	-	-
Fall River, . . . . .	-	50,000 00	2,515 50	-	-	-	-	-	-	-	-	-
Freetown, . . . . .	-	-	-	259 29	-	-	-	-	-	-	-	-
Mansfield, . . . . .	-	1,000 00	36 00	529 92	-	-	-	-	-	-	362 58	50 00
New Bedford, . . . . .	-	51,000 00	3,060 00	1,322 78	1	65	\$6,500 00	13	3,685	18,900 00	262 58	-
North Attleboro', . . . . .	-	-	-	880 28	-	-	-	-	-	-	-	-
Norton, . . . . .	-	-	-	378 91	1	75	2,476 00	-	-	-	362 57	-
Raynham, . . . . .	-	-	-	266 33	-	-	-	-	-	-	362 57	92 30
Rehoboth, . . . . .	-	-	-	405 46	-	-	-	1	12	153 60	362 57	-
Seekonk, . . . . .	-	-	379 04	323 13	-	-	-	-	-	-	330 06	15 00
Somerset, . . . . .	-	8,400 00	-	305 21	-	-	-	-	-	-	262 57	100 00
Swansea, . . . . .	-	-	-	313 05	-	-	-	-	-	-	362 57	-
Taunton, . . . . .	-	-	-	1,322 50	1	55	2,500 00	2	499	400 00	-	-
Westport, . . . . .	-	-	-	-	-	-	-	-	-	-	262 57	-
Totals, . . . . .	\$2,000 00	\$247,439 40	\$12,424 04	\$9,145 43	3	195	\$11,476 00	40	8,551	\$29,653 60	\$1,513 54	\$114 83



# SCHOOL RETURNS.

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## DUKES COUNTY — CONCLUDED.

Chilmark, .	-	-	-	-	-	-	\$17 70	-	-	-	-	\$408 39	-
Cottage City, .	-	-	-	-	-	-	96 04	-	-	-	-	100 00	-
Edgartown, .	-	-	-	-	-	-	96 04	-	-	-	-	308 39	-
Gay Head, .	-	-	-	-	-	-	-	-	-	-	-	430 06	-
Gosnold, .	-	-	-	-	-	-	-	-	-	-	-	300 00	-
Tisbury, .	-	-	-	-	-	-	44 56	-	-	-	-	330 06	-
West Tisbury, .	-	-	-	-	-	-	-	-	-	-	-	462 57	-
Totals, .	-	-	-	-	-	-	\$254 34	-	-	-	-	\$2,339 47	-

## ESSEX COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1896.	No. of Public Schools.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Amesbury,	9,986	\$5,095,866	30	1,642	962	1,293	—	129	692	1,054	963	.92	35
Andover,	6,145	4,679,913	31	1,015	649	1,125	86	16	649	931	874	.94	31
Beverly,	11,806	14,172,500	48	1,988	1,129	2,204	—	198	1,129	1,848	1,666	.90	53
Boxford,	727	700,465	6	102	72	114	2	9	76	87	78	.90	6
Bradford,	4,736	2,634,619	24	808	463	996	14	143	430	859	816	.95	27
Danvers,	8,181	4,589,255	29	1,268	893	1,588	8	161	924	1,369	1,225	.90	34
Essex,	1,587	959,577	9	227	150	310	6	31	155	247	219	.89	10
Georgetown,	2,050	997,800	11	322	238	344	1	29	238	317	301	.94	12
Gloucester,	28,211	15,522,384	89	4,086	2,334	4,563	1	477	2,314	3,929	3,805	.97	113
Groveland,	2,333	976,633	12	398	221	474	5	43	272	419	395	.94	13
Hamilton,	1,356	1,718,040	6	209	121	239	—	7	141	181	161	.89	6
Haverhill,	30,209	21,228,671	97	4,985	2,656	4,234	2	594	2,322	3,579	3,347	.93	116
Ipswich,	4,720	2,982,991	21	868	578	899	—	175	561	697	633	.91	27
Lawrence,	52,164	34,884,223	152	9,635	5,651	7,343	10	798	4,065	5,889	5,630	.95	215
Lynn,	62,354	50,741,746	220	10,334	5,936	10,322	—	1,064	5,401	9,184	8,599	.94	236
Lynnfield,	818	644,534	4	134	85	146	6	10	68	125	105	.84	4
Manchester,	1,876	7,299,090	8	287	175	363	—	57	170	293	276	.94	11
Marblehead,	7,671	5,535,668	28	1,019	718	1,345	62	115	663	1,209	1,115	.92	37
Merrimac,	2,301	1,315,698	14	361	215	472	4	63	231	382	363	.95	17
Methuen,	5,690	3,640,288	25	1,154	715	1,181	4	81	691	955	882	.92	29
Middleton,	838	553,100	5	144	118	134	—	1	88	111	97	.87	5
Nahant,	865	4,824,578	4	118	72	136	—	21	72	114	107	.94	5
Newbury,	1,489	985,052	9	234	156	255	5	11	174	237	171	.72	12

## SCHOOL RETURNS.

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Newburyport, .	14,552	9,762,540	41	2,303	1,326	1,905	2	193	1,076	1,573	1,456	.93	43
North Andover, .	3,569	2,923,589	20	714	417	871	1	70	414	700	651	.93	25
Peabody, .	10,507	7,768,750	38	1,898	1,124	1,791	97	170	933	1,526	1,386	.91	48
Rockport, .	5,289	2,757,700	16	768	459	827	-	135	540	714	682	.95	17
Rowley, .	1,272	655,084	6	189	130	191	-	4	125	164	147	.90	6
Salem, .	34,473	28,662,900	101	6,051	4,046	3,947	317	450	2,126	3,831	3,473	.91	121
Salisbury, .	1,300	620,845	7	238	154	248	3	9	143	195	168	.86	7
Saugus, .	4,497	3,223,327	22	856	497	1,037	16	73	589	811	747	.92	24
Swampscott, .	3,259	5,141,304	14	646	406	684	8	77	359	526	476	.90	15
Topsfield, .	1,033	887,350	3	131	95	155	1	6	80	116	108	.93	3
Wenham, .	886	703,525	5	159	77	132	-	4	75	108	100	.92	5
West Newbury, .	1,643	866,850	11	249	167	282	4	27	167	249	227	.91	11
Totals, .	330,393	\$250,656,405	1,166	55,540	33,205	52,150	665	5,451	28,203	44,529	41,449	.93	1,379

## BOARD OF EDUCATION.

## ESSEX COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'g wages per month of male teachers in Public Schools.	A'v'g wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months.	
Amesbury, .	2	44	19	17	\$121 25	\$43 16	260	9	-	1	5	159	Taxation.	8	\$1,300 00
Andover, .	-	34	10	8	-	48 00	275	9-10	-	1	5	100	Part tax.	9-5	1,800 00
Beverly, .	5	50	11	9	131 50	41 34	480	10	-	1	6	176	Taxation.	10	1,500 00
Boxford, .	-	8	1	1	-	32 00	54	9	-	1	-	-	-	-	-
Bradford, .	2	32	7	7	121 25	49 25	218	9-2	-	1	4	82	Taxation.	9-15	1,300 00
Danvers, .	3	34	16	15	128 00	47 00	290	10	-	1	6	190	Taxation.	10	1,600 00
Essex, .	1	10	6	5	100 00	29 44	76-10	8-10	-	1	2	52	Taxation.	8-10	850 00
Georgetown, .	2	14	6	2	100 00	37 85	109	9-18	-	1	2	53	Taxation.	10	1,000 00
Gloucester, .	5	120	28	24	150 00	41 00	839-8	9-9	-	1	12	359	Taxation.	9-14	2,300 00
Groveland, .	2	17	9	7	89 86	35 28	108	9	-	1	2	75	Taxation.	9-5	831 25
Hamilton, .	-	15	2	2	-	39 83	57	9-10	-	-	-	-	-	-	-
Haverhill, .	5	111	19	14	143 70	58 16	970	10	-	1	11	339	Taxation.	10	2,000 00
Ipswich, .	2	25	12	10	155 00	36 00	201	9-10	-	1	3	73	Part tax.	10	1,800 00
Lawrence, .	12	203	32	23	139 17	51 88	1,509-10	10	-	1	15	400	Taxation.	10	2,500 00
Lynn, .	17	227	92	90	160 12	61 65	2,007-10	9-2	-	2	28	777	Taxation	9-2	2,500 00
Lynnfield, .	-	6	4	3	-	37 00	39	9-15	-	-	-	-	-	-	-
Manchester, .	3	10	4	3	95 00	43 71	80	10	-	1	2	54	Taxation.	10	1,100 00
Marblehead, .	2	35	15	12	150 00	43 36	280	10	-	1	5	127	Taxation.	10	1,500 00
Merrimac, .	1	20	11	9	110 00	40 71	122-5	8-14	-	1	2	78	Taxation.	9-5	1,100 00
Methuen, .	2	33	2	-	81 58	40 41	237-10	9-10	-	1	4	98	Taxation.	9-10	1,200 00
Middleton, .	-	5	3	2	-	38 40	47-1	9-8	-	-	-	-	-	-	-
Nahant, .	1	4	3	3	129 72	63 51	36	9-5	-	1	2	34	Taxation.	9-5	1,200 00

## SCHOOL RETURNS.

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Newbury, . . . . .	-	10	2	2	-	29 21	85-10	9-10	-	1*	3	8	Taxation.	9-10	200 00
Newburyport, . . . . .	4	43	7	3	3	43 75	410	10	-	1	7	180	Part tax.	10	2,200 00
North Andover, . . . . .	3	28	8	7	7	90 09	190-10	9-10	-	1	4	76	Taxation.	10	1,250 00
Peabody, . . . . .	4	47	23	23	23	132 50	380	10	-	1	5	143	Taxation.	10	1,600 00
Rockport, . . . . .	2	19	8	7	7	105 24	146	9-2	-	1	2	119	Taxation.	9-2	1,000 00
Rowley, . . . . .	-	9	1	1	1	-	54	9	-	-	-	-	-	-	-
Salem, . . . . .	11	110	83	76	76	147 75	924	9-6	-	1	15	356	Taxation.	9-10	2,400 00
Salisbury, . . . . .	1	7	1	1	1	60 00	60	8-12	-	-	-	-	-	-	-
Saugus, . . . . .	2	29	21	20	20	120 00	42 11	8-18	-	1	3	76	Taxation.	10	1,200 00
Swampscott, . . . . .	1	14	6	5	5	160 00	140	10	-	1	3	60	Taxation.	10	1,600 00
Topsfield, . . . . .	1	2	1	-	-	50 00	27	9	-	1	2	33	Taxation.	6-5	800 00
Wenham, . . . . .	-	6	5	5	5	-	44	8-16	-	-	-	-	-	-	-
West Newbury, . . . . .	3	10	-	-	-	80 55	84	8-1	-	1	1	36	Taxation.	9	741 63
Totals, . . . . .	99	1,391	478	416	416	\$131 74	\$18 85	11,035-14	9-9	29	161	4,313	-	9-8	\$42,872 88

\* United with Dummer Academy.

## ESSEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including board, transportation, fuel, care of fires and schoolrooms, for the school year 1896-97.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Amesbury, . . . . .	\$16,940 41	—	\$500 00	—	\$1,480 54	\$1,346 86	—	\$5,993 33	\$293 19	\$26,504 33
Andover, . . . . .	17,171 50	—	—	\$1,500 00	1,500 00	—	—	3,000 00	—	23,171 50
Beverly, . . . . .	29,732 89	\$562 65	—	1,800 00	4,198 53	1,935 45	\$4,266 43	3,000 00	2,457 06	47,390 36
Boxford, . . . . .	1,600 00	—	128 00	—	215 90	14 00	—	—	112 46	2,070 36
Bradford, . . . . .	15,566 09	—	225 00	510 00	1,469 22	1,198 21	—	—	350 00	19,318 52
Danvers, . . . . .	21,302 00	400 00	350 00	1,000 00	1,790 00	—	22,547 00	646 00	2,282 00	49,917 00
Essex, . . . . .	3,500 00	66 00	188 81	—	1,035 55	82 00	—	—	295 30	5,101 66
Georgetown, . . . . .	5,675 00	—	400 00	300 00	500 00	100 00	—	202 00	270 59	7,447 59
Gloucester, . . . . .	62,170 74	400 00	420 00	2,300 00	4,501 25	248 00	17,963 31	1,171 36	5,215 85	93,990 51
Groveland, . . . . .	5,559 80	—	167 50	300 00	403 05	253 35	—	—	92 03	6,755 73
Hamilton, . . . . .	2,508 10	—	130 00	—	495 87	121 54	—	—	231 02	3,486 53
Haverhill, . . . . .	83,334 17	694 35	360 00	2,000 00	6,447 79	3,501 78	—	—	4,406 40	100,050 14
Ipswich, . . . . .	10,295 55	—	510 25	—	818 94	388 78	3,894 99	—	360 37	16,268 88
Lawrence, . . . . .	123,556 10	—	—	3,000 00	16,308 48	224 76	59,537 53	3,571 86	7,969 80	214,198 53
Lynn, . . . . .	186,406 72	—	1,900 00	2,700 00	13,144 73	6,982 23	20,189 14	12,058 31	11,358 58	254,739 71
Lynnfield, . . . . .	1,969 97	—	95 00	—	370 54	—	—	369 95	94 85	2,900 31
Manchester, . . . . .	6,687 67	456 00	125 00	400 00	1,098 02	40 00	—	437 20	270 00	9,057 89
Marblehead, . . . . .	19,280 75	—	—	1,111 50	1,857 54	888 72	—	—	870 90	24,009 41
Merrimac, . . . . .	7,573 59	—	340 00	155 00	709 47	280 48	—	325 15	110 24	9,493 93
Methuen, . . . . .	15,340 33	55 00	—	800 00	1,392 76	—	—	—	1,611 65	19,144 74
Middleton, . . . . .	1,600 00	—	80 00	—	207 04	24 80	—	—	80 49	1,992 33
Nahant, . . . . .	4,406 26	—	275 00	—	364 09	228 77	—	—	164 16	5,438 28
Newbury, . . . . .	2,979 81	—	75 00	—	417 87	83 36	—	—	146 46	3,702 50

## SCHOOL RETURNS.

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Newburyport, .	25,203 26	-	-	1,200 00	1,475 32	120 05	-	3,735 14	300 00	32,033 77
North Andover, .	12,927 80	-	115 00	550 00	1,266 24	41 25	-	1,280 26	689 79	16,870 34
Peabody, .	28,517 03	233 45	-	1,558 33	2,381 22	992 67	-	-	796 00	34,245 25
Rockport, .	7,799 23	-	150 00	600 00	998 41	350 94	-	-	433 17	10,331 75
Rowley, .	2,301 68	274 22	75 00	150 00	117 78	69 92	-	-	200 00	2,914 38
Salem, .	89,847 36	-	1,200 00	2,500 00	6,392 28	1,723 30	-	3,625 00	3,058 76	108,346 70
Salisbury, .	2,372 00	90 00	103 00	-	351 53	118 66	453 40	-	220 94	3,619 53
Saugus, .	13,054 17	350 00	-	1,000 00	1,091 59	268 24	-	4,865 58	99 93	20,379 51
Swampscott, .	11,424 57	-	400 00	-	1,644 81	75 00	-	173 46	110 27	13,828 11
Topsfield, .	2,640 00	250 00	100 00	-	385 00	20 00	-	-	55 00	3,200 00
Wenham, .	1,400 00	-	112 00	-	280 78	21 09	-	76 48	13 85	1,904 20
West Newbury, .	3,598 91	120 50	200 00	-	365 37	12 50	-	-	324 63	4,501 41
Totals, .	\$846,253 46	\$3,952 17	\$8,724 56	\$25,431 83	\$77,427 51	\$21,756 71	\$128,851 80	\$44,531 08	\$45,345 74	\$1,198,325 69

## ESSEX COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Pub- lic Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Acad- emies.	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1897.	How much of said fund was used for appa- ratus and books of reference.
					No. of Academies.	Whole No. at- tending for the year.	Amount of tu- tion paid.	No. of Private Schools.	Whole No. at- tending for the year.	Estimated amount of tuition.		
Amesbury, .	-	\$423,858 00	\$23,586 44	-	2	475	\$30,000 00	1	500	-	-	-
Andover, .	-	3,000 00	180 00	-	1	-	-	1	8	-	-	-
Beverly, .	\$50 00	3,467 59	119 90	\$394 50	1	-	-	2	40	\$600 00	\$362 58	-
Boxford, .	-	-	-	-	1	107	5,750 00	2	24	-	212 58	-
Bradford, .	-	-	-	-	1	-	-	2	33	1,625 00	-	-
Danvers, .	-	-	-	-	2	17	-	2	17	1,580 00	-	-
Essex, .	-	-	-	-	1	-	-	1	-	-	330 06	\$75 24
Georgetown, .	-	-	-	169 57	1	-	-	3	325	1,500 00	362 58	-
Gloucester, .	-	-	-	-	1	-	-	1	-	-	-	32 27
Groveland, .	-	-	-	-	1	-	-	1	-	-	362 58	-
Hamilton, .	-	-	-	-	1	-	-	1	-	-	262 58	-
Haverhill, .	-	6,020 00	344 00	-	6	-	-	6	1,400	-	180 06	-
Ipswich, .	-	72,170 75	3,119 68	-	7	-	-	7	2,200	4,300 00	-	-
Lawrence, .	-	-	-	-	5	-	-	5	1,000	1,700 00	-	-
Lynn, .	-	-	-	-	1	-	-	1	-	-	330 06	-
Lynnfield, .	-	-	-	-	1	-	-	1	-	-	-	-
Manchester, .	-	-	-	-	1	-	-	1	-	-	-	-
Marblehead, .	-	10,000 00	-	-	1	-	-	1	-	-	-	-
Merrimac, .	-	-	-	301 57	1	-	-	1	25	2,000 00	262 58	34 91
Methuen, .	-	-	-	150 79	1	-	-	1	38	190 00	-	-
Middleton, .	-	-	-	574 00	1	-	-	1	-	-	330 06	-
Nahant, .	-	-	-	110 68	1	-	-	1	-	-	-	-
Newbury, .	-	-	-	-	1	26	450 00	1	-	-	-	-
Newbury, .	-	-	-	214 82	1	-	-	1	-	-	362 58	-



## SCHOOL RETURNS.

XXV

Newburyport, .	-	65,000 00	3,675 00	-	1	92	-	4	619	3,000 00	-	-
North Andover,	-	4,000 00	161 60	-	-	-	-	-	-	-	212 58	-
Peabody, .	-	10,000 00	600 00	700 11	-	-	-	2	459	200 00	-	-
Rockport, .	-	-	-	-	-	-	-	-	-	-	158 38	-
Rowley, .	-	-	-	-	-	-	-	1	3	-	330 06	-
Salem, .	-	25,425 00	1,225 50	2,435 77	-	-	-	14	2,169	12,000 00	-	-
Salisbury, .	-	-	-	125 40	-	-	-	-	-	-	362 57	85 00
Saugus, .	-	-	-	-	-	-	-	-	-	-	158 38	-
Swampscott, .	-	-	-	-	-	-	-	-	-	-	-	-
Topsfield, .	-	-	-	127 44	-	-	-	-	-	-	308 38	-
Wenham, .	-	-	-	174 14	-	-	-	-	-	-	330 06	-
West Newbury,	-	-	-	-	-	-	-	-	-	-	362 57	32 00
Totals, .	\$50 00	\$622,941 34	\$33,012 12	\$5,478 79	5	700	\$36,200 00	53	8,860	\$28,695 00	\$5,581 28	\$259 42

## FRANKLIN COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1896.	No. of Public Schools.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The percent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Ashfield, .	1,013	\$510,119	10	111	79	183	—	44	79	143	134	.94	11
Barnardston, .	778	398,946	6	133	83	130	—	5	87	95	88	.93	6
Buckland, .	1,548	567,715	9	266	156	282	—	6	186	248	233	.94	10
Charlemont, .	1,041	347,269	10	142	91	181	—	20	111	143	133	.93	10
Colrain, .	1,610	570,012	13	285	200	322	2	25	199	260	240	.92	13
Conway, .	1,304	676,354	9	205	131	238	1	32	131	206	193	.94	10
Deerfield, .	3,007	1,651,951	12	373	250	300	—	10	176	248	218	.89	12
Erving, .	964	394,443	6	202	140	220	—	6	139	182	174	.95	6
Gill, .	1,082	488,184	5	138	96	133	1	3	93	111	102	.93	5
Greenfield, .	6,229	5,278,533	35	1,159	690	1,442	2	202	742	1,256	1,177	.94	45
Heath, .	468	142,150	7	80	50	79	1	4	50	70	66	.94	7
Hawley, .	476	153,629	6	100	64	117	1	17	64	93	89	.96	6
Leverett, .	744	274,534	5	132	81	132	1	5	84	103	94	.91	5
Leyden, .	363	299,161	5	53	39	67	—	10	39	59	48	.81	5
Monroe, .	298	143,569	3	41	30	54	1	4	30	38	35	.92	3
Montague, .	6,058	3,647,823	28	1,119	676	1,231	8	68	706	1,017	964	.95	34
New Salem, .	869	279,927	10	139	92	134	4	7	94	118	108	.91	11
Northfield, .	1,851	908,918	10	222	167	251	—	25	192	200	181	.91	10
Orange, .	5,361	2,853,910	26	922	630	1,153	—	144	606	994	956	.96	31
Rowe, .	498	173,009	6	75	56	79	6	3	52	58	50	.86	6
Shelburne, .	1,560	879,510	10	195	122	303	3	63	155	265	249	.94	16
Shutesbury, .	444	161,527	5	66	39	71	2	2	39	57	52	.92	5
Sunderland, .	696	422,300	3	90	64	112	—	15	73	80	76	.95	4

Warwick, . . .	599	326,439	5	99	52	111	-	6	69	84	78	.93	5
Wendell, . . .	529	240,110	5	104	63	107	4	9	58	80	76	.95	5
Whately, . . .	755	414,022	5	108	66	105	1	7	66	82	76	.93	5
Totals, . . .	40,145	\$22,204,064	254	6,559	4,207	7,587	40	742	4,320	6,290	5,890	.94	286

## HAMPDEN COUNTY.

Agawam, . . .	2,408	\$1,316,981	13	489	289	530	5	24	311	382	349	.91	13
Blandford, . . .	849	425,200	10	116	81	163	3	18	83	141	127	.90	10
Brimfield, . . .	962	397,799	8	135	81	144	3	6	81	108	96	.89	8
Chester, . . .	1,429	568,113	8	255	181	287	3	15	175	217	199	.92	8
Chicopee, . . .	16,420	8,793,230	39	2,666	1,669	2,471	-	213	1,397	1,746	1,630	.93	52
East Longmeadow, . . .	1,591	630,234	9	323	184	355	2	13	216	287	257	.89	9
Granville, . . .	1,005	348,393	8	206	131	225	4	18	134	176	164	.93	8
Hampden, . . .	743	400,020	5	85	59	100	1	6	68	84	80	.95	5
Holland, . . .	199	88,682	1	24	14	24	-	2	14	22	21	.95	1
Holyoke, . . .	40,322	29,557,225	138	8,795	5,682	5,695	47	414	3,614	4,400	3,983	.91	152
Longmeadow, . . .	620	528,495	4	83	49	87	-	1	62	87	75	.86	4
Ludlow, . . .	2,562	1,174,667	15	454	313	485	2	23	312	324	293	.90	15
Monson, . . .	3,746	1,711,861	20	594	362	669	4	71	373	581	542	.93	25
Montgomery, . . .	275	138,931	5	52	28	54	-	1	28	43	37	.86	5
Palmer, . . .	6,858	2,716,749	28	1,035	686	1,261	4	94	712	981	913	.93	31
Russell, . . .	846	491,234	7	159	101	160	1	3	109	146	120	.82	8
Southwick, . . .	961	491,840	10	195	153	204	4	10	153	146	135	.92	10
Springfield, . . .	51,522	61,416,091	183	8,307	4,925	8,814	282	850	4,965	7,267	6,741	.93	249
Tolland, . . .	309	141,821	6	57	30	67	3	6	30	55	51	.93	6
Wales, . . .	783	266,232	5	145	96	165	1	3	110	126	115	.91	5
Westfield, . . .	10,663	7,950,505	34	1,828	1,032	2,058	9	342	1,022	1,620	1,544	.95	53
West Springfield, . . .	6,125	4,346,090	32	1,180	708	1,559	4	149	851	1,269	1,182	.93	38
Wilbraham, . . .	1,740	751,449	11	260	150	304	5	19	165	204	187	.92	11
Totals, . . .	152,938	\$124,651,842	599	27,443	17,027	25,881	387	2,301	14,955	20,412	18,841	.92	726

## FRANKLIN COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'g wages per month of male teachers in Public Schools.	A'v'g wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of Principal.	
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		
Ashfield, .	2	13	1	1	\$52 47	\$25 62	74-5	7-8	-	1	2	39	Part tax.	9-10	9	\$700 00
Barnardston, .	-	8	1	1	-	29 33	49-10	8-5	-	1*	3	72	Part tax.	9	-	1,000 00
Buckland, .	-	11	4	4	-	33 00	80-2	8-18	-	-	-	-	-	-	-	-
Charlemont, .	-	14	3	3	-	28 00	66	6-12	-	-	-	-	-	-	-	-
Colrain, .	1	17	-	-	30 00	27 00	96-17	7-9	-	-	-	-	-	-	-	-
Conway, .	1	18	2	2	66 67	28 56	68	8-16	-	1	2	44	Taxation.	9	-	666 67
Deerfield, .	2	19	10	6	40 00	33 50	100-5	8-7	-	1	1	36	Taxation.	9-10	-	450 00
Erving, .	-	11	1	4	-	34 66	54	9	-	-	-	-	-	-	-	-
Gill, .	-	7	1	1	-	33 50	43-15	8-15	-	-	-	-	-	-	-	-
Greenfield, .	3	49	9	9	87 46	41 00	328-14	9-8	-	1	6	159	Taxation.	9-16	-	1,526 00
Hawley, .	-	12	1	1	-	26 00	42	6	-	-	-	-	-	-	-	-
Heath, .	2	11	-	-	28 00	25 00	45	7-10	-	-	-	-	-	-	-	-
Leverett, .	-	8	1	1	-	27 20	42-10	8-10	-	-	-	-	-	-	-	-
Leyden, .	-	6	-	-	-	24 40	38-1	7-12	-	-	-	-	-	-	-	-
Monroe, .	-	6	3	3	-	30 25	27	9	-	-	-	-	-	-	-	-
Montague, .	1	39	21	17	145 67	39 06	252	9	-	2	6	99	Taxation.	{ 9	-	1,400 00
New Salem, .	2	15	1	1	28 67	25 00	67	6-7	-	1†	3	25	Part tax.	{ 9	-	750 00
Northfield, .	-	14	6	5	-	33 20	80-5	8-15	-	-	-	-	-	9	-	544 00
Orange, .	2	38	12	12	90 70	39 79	227	8-15	-	1	4	133	Taxation.	9-15	-	1,284 60
Rowe, .	1	8	-	-	24 00	27 46	40-10	6-15	-	-	-	-	-	-	-	-
Shelburne, .	1	20	4	2	133 00	41 70	88-12	8-17	-	1†	4	56	Taxation.	8-19	-	1,300 00
Shutesbury, .	-	7	1	1	-	24 72	37-10	7-10	-	-	-	-	-	-	-	-
Sunderland, .	-	6	2	1	-	38 50	26-5	8-15	-	-	-	-	-	-	-	-

# SCHOOL RETURNS.

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Warwick, . . .	1	7	-	28 00	28 00	39	9	-	-	-	-	-
Wendell, . . .	-	6	1	-	29 00	36-6	7-5	-	-	-	-	-
Whately, . . .	1	8	1	34 00	29 40	41-5	8-5	-	-	-	-	-
Totals, . . .	20	378	85	\$60 17	\$33 40	2,091-12	8-4	-	10	31	663	9-5
												\$9,621 27

## HAMPDEN COUNTY — CONTINUED.

Agawam, . . .	3	16	7	6	\$48 00	\$36 39	107-15	8-10	-	-	-	-	-	-
Blandford, . . .	2	13	3	1	34 78	28 60	66-8	6-12	-	-	-	-	-	-
Brimfield, . . .	-	10	-	-	-	28 00	62-15	7-16	-	-	-	-	10	\$1,200 00
Chester, . . .	1	14	3	1	44 00	31 50	71-14	8-19	-	-	-	-	-	-
Chicopee, . . .	4	59	18	16	103 12	43 44	361	9-10	-	-	-	-	10	1,800 00
East Longmeadow, . . .	-	12	5	5	-	37 77	79-1	8-16	-	-	-	-	-	-
Granville, . . .	2	12	10	4	42 00	35 00	65-10	8-15	-	-	-	-	-	-
Hampden, . . .	1	5	-	-	40 00	29 50	38-10	8-10	-	-	-	-	-	-
Holland, . . .	-	1	-	-	-	37 32	8-4	8-4	-	-	-	-	-	-
Holyoke, . . .	15	137	43	78	129 58	64 58	1,276-10	9-5	-	-	-	-	9-5	2,200 00
Longmeadow, . . .	-	4	2	2	-	28 00	36	9	-	-	-	-	-	-
Ludlow, . . .	-	21	6	2	-	38 07	127	8-14	-	-	-	-	6	700 00
Monson, . . .	5	21	3	3	87 75	38 68	180-3	9-3	-	-	-	-	9-15	1,500 00
Montgomery, . . .	-	7	1	-	-	23 20	35	7	-	-	-	-	-	-
Palmer, . . .	2	35	3	8	150 00	42 57	229-7	9-4	-	-	-	-	9-19	1,500 00
Russell, . . .	-	8	2	1	-	27 50	61	8-15	-	-	-	-	-	-
Southwick, . . .	2	12	5	1	60 00	26 68	87-14	8-15	-	-	-	-	-	-
Springfield, . . .	14	236	150	128	181 53	61 08	1,830	10	-	-	-	-	10	3,500 00
Tolland, . . .	-	7	1	-	-	20 33	45	7-10	-	-	-	-	-	-
Wales, . . .	1	7	2	1	22 00	27 12	41-10	8-6	-	-	-	-	-	-
Westfield, . . .	7	59	47	41	155 83	48 18	343-3	10-1	-	-	-	-	10-2	2,600 00
West Springfield, . . .	1	49	8	11	172 50	43 82	296-10	9-5	-	-	-	-	9-15	1,800 00
Wilbraham, . . .	1	16	3	4	40 00	32 80	93	9	-	-	-	-	-	-
Totals, . . .	61	761	322	313	\$122 34	\$50 35	5,542-14	9-5	-	9	65	1,596	9-8	\$16,800 00

\* Power's Institute.

† New Salem Academy.

‡ Arms Academy.

§ United with Monson Academy.

## BOARD OF EDUCATION.

## FRANKLIN COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including wages of teachers, board, fuel, care of fires and schoolrooms, for the school year 1896- 97.	Expense for trans- portation, included also in the preceding column.	Expense of supervision, by school committee, including clerical aid.	Salary of Superintendent or town's share of it.	Expense of books, sta- tionery and school supplies.	Sundries (reports, cen- sus, etc.).	Amount expended for new schoolhouses.	Amount expended for permanent improve- ments.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by tax- ation.
Ashfield, . .	\$2,244 71	\$43 00	\$74 71	-	\$216 89	\$6 00	-	\$31 50	\$47 26	\$2,021 07
Barnardston, . .	1,688 09	-	31 50	\$144 22	90 06	57 56	-	-	69 05	2,080 48
Buckland, . .	2,793 05	137 89	80 00	225 00	294 15	73 82	-	415 00	82 73	3,363 75
Charlemont, . .	1,500 00	25 00	35 00	300 00	117 83	75 54	-	-	65 37	2,093 74
Colrain, . .	2,757 97	309 00	107 30	300 00	374 48	36 20	-	-	108 02	3,683 97
Conway, . .	3,200 00	234 50	75 00	201 00	314 25	-	-	-	95 50	3,885 75
Deerfield, . .	6,000 00	668 00	302 20	360 00	636 28	-	-	-	250 62	7,549 10
Erving, . .	2,100 00	437 90	80 00	113 91	287 96	20 00	-	-	252 86	2,804 73
Gill, . .	1,828 50	45 00	65 00	144 24	158 39	30 61	-	13 99	68 72	2,309 45
Greenfield, . .	20,357 64	283 37	150 00	1,750 00	2,955 53	75 00	\$2,775 52	860 85	1,512 18	30,436 72
Hawley, . .	774 20	53 00	43 17	180 00	53 82	-	-	-	55 59	1,106 78
Heath, . .	900 00	152 50	76 25	-	57 02	15 00	-	239 50	30 43	1,318 20
Leverett, . .	847 07	106 15	76 00	150 00	103 61	8 00	-	70 00	38 60	1,386 24
Leyden, . .	700 00	-	45 00	-	103 61	8 00	-	290 56	59 10	1,206 27
Monroe, . .	513 90	50 00	13 00	90 00	79 58	32 58	-	-	6 80	735 86
Montague, . .	16,985 24	1,296 87	400 00	-	1,359 79	431 95	-	-	504 00	19,680 98
New Salem, . .	1,500 00	83 92	46 50	-	284 21	5 00	-	-	60 36	1,896 07
Northfield, . .	3,000 00	200 00	38 65	259 56	289 19	310 93	-	-	180 80	4,079 13
Orange, . .	15,162 44	676 20	375 00	594 50	1,509 99	303 57	1,436 64	378 45	199 30	19,959 89
Rowe, . .	807 00	-	51 00	-	138 00	10 00	-	-	14 00	1,020 00
Shelburne, . .	4,150 45	340 00	-	225 00	311 39	43 27	-	255 73	82 11	5,067 95
Shutesbury, . .	600 00	-	66 50	-	100 00	-	-	-	-	766 50
Sunderland, . .	1,925 00	626 70	42 50	86 60	208 91	104 69	-	-	51 80	2,419 50

# SCHOOL RETURNS.

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## HAMPDEN COUNTY — CONTINUED.

Warwick, .	1,029 77	352 75	6 00	201 96	22 07	8 00	—	34 62	—	1,302 42
Wendell, .	683 16	81 65	35 00	41 59	101 15	15 75	—	61 87	113 14	1,051 66
Whately, .	1,300 00	39 00	75 00	97 84	148 80	30 00	—	—	78 32	1,729 96
Totals, .	\$95,348 19	\$6,242 40	\$2,340 28	\$5,465 42	\$10,404 20	\$1,707 19	\$4,212 16	\$2,652 07	\$4,026 66	\$126,156 17

Agawam, .	\$5,663 35	—	\$128 61	\$250 00	\$451 52	\$31 39	\$6,776 87	—	\$65 14	\$13,366 88
Blandford, .	2,050 00	\$184 60	12 00	70 00	197 22	19 00	—	\$62 07	155 62	2,565 91
Brimfield, .	1,874 43	59 25	36 45	225 00	117 78	—	—	—	61 62	2,315 28
Chester, .	2,669 67	89 50	91 00	334 22	279 15	10 00	—	—	49 63	3,433 67
Chicopee, .	26,386 99	271 35	—	1,800 00	2,804 36	2,696 75	4,861 72	1,824 24	3,505 70	44,379 76
E. Longmeadow, .	3,713 32	—	60 00	62 12	291 24	30 45	—	—	274 09	4,431 22
Granville, .	2,202 40	240 90	53 00	250 00	249 20	59 30	—	113 91	29 65	2,957 46
Hampden, .	1,300 00	337 08	82 00	45 77	112 43	—	—	92 40	—	1,632 60
Holland, .	225 00	75 00	19 00	—	37 78	4 00	—	—	35 30	321 08
Holyoke, .	108,226 47	—	583 32	2,946 45	9,434 43	11,916 58	4,038 72	—	—	137,145 97
Longmeadow, .	2,000 00	106 00	27 75	185 69	280 26	207 39	—	—	375 80	3,076 89
Ludlow, .	5,380 52	235 00	150 00	260 46	387 28	247 36	—	—	144 16	6,569 78
Monson, .	9,679 17	—	140 00	525 00	710 86	42 50	—	—	730 53	11,828 06
Montgomery, .	600 00	—	31 00	—	46 64	6 00	—	—	56 95	740 59
Palmer, .	16,999 73	1,549 70	—	1,050 00	1,037 26	1,174 58	7,491 21	373 24	265 19	28,391 21
Russell, .	1,800 00	—	82 00	—	96 80	—	—	12 90	40 57	2,032 27
Southwick, .	1,639 60	139 60	88 25	250 00	257 12	20 00	—	—	422 77	2,677 74
Springfield, .	185,165 33	307 40	2,527 51	4,000 00	18,486 89	9,352 11	43,684 86	410 32	8,694 10	272,321 12
Tolland, .	500 00	—	60 00	—	96 27	3 25	—	—	51 18	710 70
Wales, .	1,522 49	124 10	—	150 00	102 08	5 00	—	—	47 14	1,826 71
Westfield, .	32,845 25	444 60	—	2,000 00	2,451 03	754 35	7,646 92	999 55	1,524 70	48,221 80
W. Springfield, .	23,242 17	—	—	1,687 44	2,525 82	256 27	—	3,050 00	1,699 62	32,461 32
Wilbraham, .	3,318 00	20 00	189 75	183 33	493 93	12 84	—	—	200 00	4,397 85
Totals, .	\$439,503 89	\$4,184 08	\$4,361 64	\$16,275 48	\$40,947 35	\$26,849 12	\$74,500 30	\$6,938 63	\$18,429 46	\$627,805 87





# SCHOOL RETURNS.

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Warwick, .	-	500 00	20 20	-	-	-	-	-	458 38	14 78
Wendell, .	25 00	540 00	32 40	-	-	-	-	-	458 38	-
Whately, .	-	-	-	-	-	-	-	-	430 06	12 00
Totals, .	\$44 00	\$53,308 99	\$4,404 22	\$1,286 22	7	964	\$62,501 08	8	\$4,505 00	\$179 38

## HAMPDEN COUNTY — CONCLUDED.

Agawam, .	-	-	-	-	-	-	-	1	30	\$350 00	\$208 39	\$52 30
Blandford, .	-	\$2,000 00	\$112 00	\$127 00	-	-	-	-	-	-	430 06	-
Britnfield, .	-	87,386 82	3,930 62	-	-	-	-	-	-	-	430 06	-
Chester, .	-	-	-	-	-	-	-	1	9	118 00	330 06	-
Chicopee, .	-	-	-	-	-	-	-	2	784	-	-	-
E. Longmeadow, .	-	731 00	29 52	130 86	-	-	-	-	-	-	416 77	-
Granville, .	-	-	-	-	-	-	-	-	-	-	512 58	36 50
Hampden, .	-	-	-	-	-	-	-	-	-	-	462 58	-
Holland, .	-	222 22	13 33	20 74	-	-	-	-	-	-	430 06	-
Holyoke, .	-	-	-	-	-	-	-	7	4,190	30,500 00	-	-
Longmeadow, .	-	-	-	-	-	-	-	-	-	-	-	-
Ludlow, .	\$746 00	-	-	-	-	-	-	-	-	-	416 77	-
Monson, .	-	61,000 00	3,196 00	119 07	-	-	-	-	-	-	316 77	-
Montgomery, .	-	-	-	427 73	1	138	\$2,626 00	-	-	-	262 58	-
Palmer, .	-	850 00	34 34	40 68	-	-	-	-	-	-	462 58	-
Russell, .	-	-	-	450 27	-	-	-	3	140	2,100 00	266 77	-
Southwick, .	-	15,618 03	765 71	-	-	-	-	-	-	-	330 06	-
Springfield, .	-	-	-	161 09	-	-	-	-	-	-	308 38	-
Tolland, .	-	-	-	-	-	-	-	5	1,600	8,500 00	-	96 27
Wales, .	10 00	-	-	-	-	-	-	-	-	-	408 38	-
Westfield, .	-	140,000 00	4,569 86	82 47	1*	-	-	-	-	-	462 57	-
W. Springfield, .	-	14,000 00	716 62	-	-	-	-	-	-	-	-	-
Wilbraham, .	-	1,308 40	78 50	-	1	254	11,816 00	-	-	-	-	-
Totals, .	\$756 00	\$323,116 47	\$13,446 50	\$1,559 91	3	392	\$14,442 00	19	6,753	\$41,568 00	\$6,872 18	\$201 07

\* United with High School.

## HAMPSHIRE COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1896.	No. of Public Schools.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Amherst, .	4,785	\$8,112,957	18	627	389	833	66	173	418	673	638	.93	21
Belchertown, .	2,161	849,190	20	485	315	531	8	38	312	420	381	.91	21
Chesterfield, .	589	280,120	6	85	55	100	3	12	55	84	77	.92	6
Cumington, .	750	285,881	5	116	69	137	1	23	61	108	103	.95	5
Easthampton, .	4,790	2,733,272	22	876	511	1,037	19	97	583	840	793	.94	27
Enfield, .	990	606,220	7	170	117	216	6	30	117	196	182	.94	7
Goshen, .	304	136,157	3	57	40	67	—	4	39	54	49	.90	3
Granby, .	748	435,331	8	117	64	162	2	26	75	125	117	.94	8
Greenwich, .	481	260,094	3	75	50	87	1	6	56	68	63	.93	3
Hadley, .	1,704	955,052	13	292	183	300	3	10	132	251	228	.91	13
Hatfield, .	1,262	960,425	8	228	150	232	6	1	153	197	177	.90	8
Huntington, .	1,450	504,080	10	282	214	335	1	5	199	269	244	.90	10
Middlefield, .	386	205,134	5	68	47	115	6	16	57	84	80	.95	5
Northampton, .	16,746	10,951,365	63	2,749	1,673	2,493	3	245	1,410	2,140	2,031	.95	79
Pelham, .	486	171,413	4	91	61	92	1	1	61	65	54	.88	4
Plainfield, .	450	161,401	6	85	53	99	2	13	63	66	62	.94	5
Prescott, .	401	160,231	5	50	28	74	1	6	34	58	53	.91	5
Southampton, .	1,054	482,063	8	226	138	230	4	21	132	171	150	.88	8
South Hadley, .	4,443	2,043,736	22	773	460	984	6	77	561	789	747	.95	27
Ware, .	7,651	4,185,335	24	1,384	826	1,320	12	67	749	978	928	.95	31

## SCHOOL RETURNS.

XXXV

Westhampton, .	476	218,629	5	88	56	91	6	3	56	83	69	.83	5
Williamsburg, .	1,955	870,480	15	314	228	454	1	37	222	387	362	.93	17
Worthington, .	648	313,228	8	123	79	173	3	9	103	125	110	.88	8
Totals, .	54,710	\$30,881,794	288	9,361	5,806	10,162	161	920	5,698	8,231	7,688	.93	326

## HAMPSHIRE COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Average wages per month of male teachers in Public Schools.	Average wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months. Days.	
Amherst, .	1	26	13	11	\$141 00	\$42 48	162-8	9	-	1	4	166	Taxation.	9-8	\$1,425 00
Belchertown, .	4	21	3	-	42 62	26 40	161	8-1	-	1	2	76	Part tax.	9	783 36
Chesterfield, .	1	7	2	-	24 00	22 75	46	7-13	-	-	-	-	-	-	-
Cummington, .	3	4	-	-	36 00	27 85	36	7-4	-	-	-	-	-	-	-
Easthampton, .	3	36	7	7	109 14	35 93	193-11	8-15	-	1	3	99	Taxation.	9-10	1,560 00
Enfield, .	-	9	5	4	-	36 28	57-10	8-15	-	1	1	16	Taxation.	8-15	437 50
Goshen, .	-	4	1	-	-	24 00	22-10	7-10	-	-	-	-	-	-	-
Granby, .	-	12	1	1	-	30 69	66	8-5	-	1	1	27	Taxation.	9	500 00
Greenwich, .	-	5	2	2	-	35 11	26-4	8-14	-	-	-	-	-	-	-
Hadley, .	-	15	2	-	-	25 89	106-15	8-4	-	1*	3	68	Not by tax.	9-10	800 00
Hatfield, .	-	11	2	2	-	31 43	72	9	-	-	-	-	-	-	-
Huntington, .	1	14	4	2	56 00	31 24	79-11	8-4	-	-	-	-	-	-	-
Middlefield, .	2	6	1	1	45 00	28 16	33-8	6-13	-	-	-	-	-	-	-
Northampton, .	5	82	34	26	122 00	43 04	599-14	9-10	-	1	8	168	Taxation.	9-18	1,700 00
Pelham, .	-	7	2	1	-	27 23	30	7-10	-	-	-	-	-	-	-
Plainfield, .	2	8	2	-	36 00	28 50	31-10	6-3	-	-	-	-	-	-	-
Prescott, .	-	9	3	1	-	24 80	36-10.	7-6	-	-	-	-	-	-	-
Southampton, .	-	14	5	2	-	30 50	66-15	8-7	-	1	1	45	Taxation.	9	360 00
South Hadley, .	5	30	4	2	73 63	37 88	198	9	-	2	4	76	Taxation.	9	1,000 00
Ware, .	5	37	4	3	96 60	45 79	228	9-10	-	1	5	151	Taxation.	9-10	1,500 00

Westhampton,	.	-	7	3	2	-	32	50	37-15	7-11	-	-	-	-	-	-	-	504 00
Williamsburg,	.	3	22	9	2	57	33	29	12	122	8-2	-	2	3	62	Taxation.	{ 9	516 00
Worthington,	.	-	12	-	-	-	-	23	25	58-10	7-6	-	-	-	-	-	{ 9	-
Totals, .	.	35	398	109	69	\$74	91	\$35	44	2,471-11	8-11	-	13	35	954	-	9-3	\$11,725 86

\* Hopkins Academy.

## HAMPSHIRE COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including wages of teachers, board, transportation, fuel, care of fires and schoolrooms, for the school year 1896-97.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sandries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Amherst, . . . . .	\$12,183 42	\$840 87	\$150 00	\$1,500 00	\$1,060 31	\$442 10	-	-	\$380 56	\$15,716 39
Belchertown, . . . . .	5,000 00	-	265 00	-	485 26	91 30	-	-	400 00	6,241 56
Chesterfield, . . . . .	900 00	79 75	60 00	-	11 08	35 75	-	-	45 03	1,051 86
Cummington, . . . . .	1,393 95	174 90	47 50	-	73 44	6 00	-	-	44 67	1,565 56
Easthampton, . . . . .	13,611 78	688 12	-	653 63	991 48	259 34	\$6,846 09	-	728 20	23,090 52
Enfield, . . . . .	2,500 00	186 00	153 75	-	401 67	-	-	-	77 07	3,132 49
Goshen, . . . . .	350 00	-	19 00	-	50 69	-	-	-	22 61	442 30
Granby, . . . . .	1,800 00	160 00	73 00	206 90	233 94	51 55	-	-	52 94	2,418 33
Greenwich, . . . . .	750 00	285 50	50 00	-	121 85	5 00	-	-	20 50	947 35
Hadley, . . . . .	3,300 00	-	189 70	-	364 13	238 51	-	-	504 70	4,597 04
Hatfield, . . . . .	2,750 00	-	28 50	254 07	331 42	-	-	\$85 99	53 42	3,503 40
Huntington, . . . . .	2,575 00	68 50	172 90	-	345 93	9 00	-	85 49	109 82	3,298 14
Middlefield, . . . . .	800 00	108 30	30 00	113 46	170 79	-	-	150 00	-	1,194 25
Norhampton, . . . . .	41,790 43	730 65	376 40	1,800 00	3,776 55	1,266 05	13,000 00	250 00	2,276 99	64,536 42
Pelham, . . . . .	862 25	-	50 00	-	65 76	-	-	-	8 70	986 71
Plainfield, . . . . .	500 00	33 60	46 78	-	68 37	8 95	-	-	47 38	671 48
Prescott, . . . . .	700 00	-	65 00	-	75 43	10 00	-	73 61	29 87	953 91
Southampton, . . . . .	1,550 00	-	80 00	144 19	180 95	2 00	-	-	106 02	2,063 16
South Hadley, . . . . .	11,730 41	-	150 00	543 10	823 17	441 71	-	-	1,324 24	15,012 63
Ware, . . . . .	20,294 55	1,697 68	-	1,800 00	2,005 63	831 63	-	2,796 66	1,167 18	28,895 65

## SCHOOL RETURNS.

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Westhampton, .	900 00	12 00	35 00	46 04	170 46	12 00	-	-	13 25	1,176 75
Williamsburg, .	3,995 16	170 50	205 00	364 20	351 82	168 99	-	572 36	186 93	5,794 46
Worthington, .	1,045 60	45 60	75 00	-	185 59	8 00	-	-	6 35	1,320 54
Totals, .	\$131,282 55	\$5,281 97	\$2,322 53	\$7,425 59	\$12,275 72	\$3,887 88	\$19,846 09	\$4,014 11	\$7,556 43	\$188,610 90

## BOARD OF EDUCATION.

## HAMPSHIRE COUNTY — CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1897.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Anherst, .	\$255 00	—	—	\$360 87	—	—	—	7	95	\$7,350 00	\$416 77	—
Belchertown, .	—	\$6,000 00	\$257 70	—	—	—	—	—	—	—	408 39	—
Chesterfield, .	—	500 00	18 00	56 71	—	—	—	—	—	—	350 00	—
Cummington, .	—	—	—	104 65	—	—	—	—	—	—	212 58	—
Easthampton, .	—	350,000 00	14,500 00	306 23	1	103	\$6,927 50	—	—	—	416 77	—
Enfield, .	—	—	—	—	—	—	—	—	—	—	300 00	—
Goshen, .	—	—	—	—	—	—	—	—	—	—	462 58	—
Granby, .	—	—	—	—	—	—	—	—	—	—	300 00	—
Greenwich, .	—	500 00	30 00	—	—	—	—	—	—	—	330 06	—
Hadley, .	—	45,191 75	—	—	1*	68	—	—	—	—	362 58	—
Hatfield, .	—	—	3,648 47	143 84	1	46	431 50	—	—	—	330 06	—
Huntington, .	—	—	—	—	—	—	—	—	—	—	516 77	—
Middlefield, .	—	500 00	20 00	6 00	—	—	—	—	—	—	—	—
Northampton, .	—	3,000 00	121 20	1,011 68	—	—	—	4	460	350 00	516 77	—
Pelham, .	—	—	—	103 11	—	—	—	—	—	—	462 57	—
Plainfield, .	—	—	—	47 95	—	—	—	—	—	—	462 57	—
Prescott, .	—	—	—	56 71	—	—	—	—	—	—	430 06	—
Southampton, .	100 00	—	—	37 13	—	—	—	—	—	—	212 57	—
South Hadley, .	—	—	—	—	—	—	—	—	—	—	—	—
Ware, .	—	—	—	—	—	—	—	1	400	—	—	—



# SCHOOL RETURNS.

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Westhampton, .	-	-	-	-	-	-	-	-	-	-	-	462 57	\$20 50
Williamsburg, .	-	23,000 00	1,021 56	152 60	-	-	-	-	-	-	-	362 57	-
Worthington, .	-	1,566 67	62 66	198 69	-	-	-	1	20	45 00	-	430 06	-
Totals, .	\$335 00	\$430,258 42	\$19,679 59	\$2,586 17	3	217	\$7,359 00	13	975	\$7,745 00	\$7,746 30	\$20 50	\$20 50

\* United with High School.

## MIDDLESEX COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1896.	No. of Public Schools.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Acton, .	1,978	\$1,529,335	9	245	148	334	—	49	185	262	249	.95	10
Arlington, .	6,515	7,851,663	26	1,135	609	1,341	—	250	754	1,176	1,092	.93	37
Ashby, .	804	458,785	8	122	83	142	5	2	82	136	118	.93	7
Ashland, .	2,090	1,182,957	9	351	216	451	—	47	239	356	336	.95	10
Ayer, .	2,101	1,363,559	12	371	213	500	10	80	265	408	385	.94	12
Bedford, .	1,169	979,055	5	189	123	225	—	13	165	173	157	.91	5
Belmont, .	2,843	4,125,095	12	438	243	557	—	49	225	446	423	.95	15
Billerica, .	2,577	1,805,130	14	457	273	524	6	36	279	436	405	.92	15
Boxborough, .	307	229,255	4	53	39	70	2	8	41	58	56	.97	4
Burlington, .	574	505,762	4	82	53	86	1	2	48	56	51	.91	4
Cambridge, .	81,643	83,750,095	293	13,716	8,179	13,992	374	1,346	6,590	11,957	11,068	.92	337
Carlisle, .	492	349,723	5	74	54	90	4	4	60	70	65	.92	5
Chelmsford, .	3,162	2,176,655	17	501	308	679	5	42	351	513	475	.93	18
Concord, .	5,175	3,862,772	13	683	419	902	1	170	465	771	717	.93	27
Dracut, .	2,443	1,781,354	12	458	258	498	—	11	373	376	341	.90	13
Dunstable, .	400	285,437	3	50	29	68	5	8	36	55	51	.94	3
Everett, .	18,573	14,422,550	78	3,638	2,043	4,837	—	305	2,559	3,608	3,432	.95	101
Framingham, .	9,512	8,014,588	43	1,900	1,126	2,225	6	209	1,126	1,884	1,774	.94	52
Groton, .	2,192	2,748,261	14	367	297	439	16	52	297	366	332	.91	15
Holliston, .	2,718	1,571,982	13	398	276	541	—	60	328	438	416	.95	14
Hopkinton, .	2,984	1,875,443	18	460	272	635	21	89	297	512	485	.95	20
Hudson, .	5,308	2,933,395	20	887	531	918	13	87	468	872	830	.95	26
Lexington, .	3,498	4,310,943	15	543	331	586	2	89	370	522	484	.93	18

## SCHOOL RETURNS.

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Lincoln, . . . . .	1,111	2,128,454	5	159	76	199	1	43	113	150	133	.89	6
Littleton, . . . . .	1,136	875,753	7	168	104	231	3	40	123	186	175	.94	7
Lowell, . . . . .	84,367	69,901,947	248	16,390	10,221	13,465	760	1,416	7,038	10,041	9,182	.91	309
Malden, . . . . .	29,708	23,799,560	121	5,243	3,074	5,334	46	643	2,645	4,715	4,473	.95	136
Marlborough, . . . . .	14,977	8,869,287	53	3,140	1,883	2,869	-	271	1,652	2,519	2,348	.93	65
Maynard, . . . . .	3,090	2,160,165	13	547	327	649	10	37	374	559	530	.95	15
Medford, . . . . .	14,474	17,719,100	54	2,524	1,472	3,319	115	395	1,833	2,651	2,455	.93	81
Melrose, . . . . .	11,965	11,434,165	53	2,030	1,307	2,251	-	185	1,236	2,154	1,999	.93	57
Natick, . . . . .	8,814	5,617,085	37	1,513	913	1,769	-	250	902	1,650	1,563	.94	48
Newton, . . . . .	27,590	49,951,825	101	4,861	3,251	5,147	307	705	2,535	4,283	3,953	.92	151
North Reading, . . . . .	885	530,852	4	132	85	167	-	12	101	131	121	.92	4
Pepperell, . . . . .	3,321	2,015,253	17	587	325	688	4	44	364	570	528	.93	21
Reading, . . . . .	4,717	3,898,377	18	794	502	954	-	117	471	782	733	.94	23
Sherborn, . . . . .	1,446	802,530	5	108	97	217	1	5	126	144	136	.94	5
Shirley, . . . . .	1,399	730,438	7	248	139	265	1	5	183	203	183	.90	8
Somerville, . . . . .	52,200	49,013,050	192	8,885	5,205	10,582	249	1,100	4,372	8,077	7,663	.95	242
Stoneham, . . . . .	6,284	4,762,485	25	956	548	1,142	16	143	583	962	915	.95	29
Stow, . . . . .	920	668,876	6	124	78	164	5	11	93	124	115	.92	6
Sudbury, . . . . .	1,141	1,149,545	6	165	110	179	-	14	110	179	164	.92	7
Tewksbury, . . . . .	3,379	1,568,715	12	436	295	495	2	22	327	374	344	.91	13
Townsend, . . . . .	1,780	1,113,905	9	320	297	332	3	19	297	264	246	.93	10
Tyngsborough, . . . . .	635	382,726	4	81	72	113	5	11	72	83	77	.93	4
Wakefield, . . . . .	8,304	6,338,570	33	1,501	840	1,863	-	276	928	1,606	1,481	.92	42
Waltham, . . . . .	20,876	18,563,432	60	3,485	2,008	2,761	-	246	1,566	2,536	2,375	.94	80
Watertown, . . . . .	7,788	9,355,430	25	1,223	775	1,311	72	164	696	990	921	.93	37
Wayland, . . . . .	2,026	1,491,955	13	373	240	485	3	44	297	384	350	.91	14
Westford, . . . . .	2,418	1,261,883	16	382	272	514	11	40	272	428	398	.93	16
Weston, . . . . .	1,710	3,131,105	6	195	123	286	2	51	136	231	216	.93	8
Wilmington, . . . . .	1,420	1,026,342	9	238	165	283	3	23	189	242	224	.93	9
Winchester, . . . . .	6,150	7,017,160	27	1,051	633	1,417	157	171	588	1,289	1,120	.87	36
Woburn, . . . . .	14,178	9,763,967	54	3,135	1,688	2,768	38	293	1,448	2,438	2,239	.91	62
Totals, . . . . .	499,217	\$465,157,731	1,886	88,112	53,248	92,859	2,285	9,804	47,267	76,386	71,102	.93	2,319

## MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Average wages per month of male teachers in Public Schools.	Average wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length, Months, Days.	
Acton, . . . . .	1	15	5	3	\$111 11	\$39 61	81	9	—	1	2	61	Taxation.	9	\$1,000 00
Arlington, . . . . .	3	45	6	6	142 40	49 62	256	10	—	1	5	98	Taxation.	10	2,200 00
Ashby, . . . . .	—	9	—	—	—	32 09	53	6-12	—	1	1	26	Taxation.	10	400 00
Ashland, . . . . .	3	13	9	5	120 00	39 00	79	8-15	—	1	2	42	Taxation.	10	1,200 00
Ayer, . . . . .	2	20	11	9	110 00	42 04	102	9-5	—	1	2	83	Taxation.	10	1,100 00
Bedford, . . . . .	—	7	5	5	—	45 55	47-10	9-10	—	1	1	31	Taxation.	9-10	570 00
Belmont, . . . . .	1	18	5	3	150 00	53 00	110	10	—	1	4	54	Taxation.	10	1,500 00
BillERICA, . . . . .	2	21	10	9	60 00	41 00	131-13	9-10	—	1	2	47	Not by tax.	9-15	1,000 00
Boxborough, . . . . .	—	6	2	2	—	35 41	34	8-10	—	—	—	—	—	—	—
Burlington, . . . . .	—	6	—	—	—	36 00	36	9	—	—	—	—	—	—	—
Cambridge, . . . . .	24	339	229	207	185 00	66 75	2,920	10	—	2	38	1,144	Taxation.	{ 10 10	3,000 00 3,000 00
Carlisle, . . . . .	—	7	3	—	—	36 00	37-8	8-15	—	—	—	—	—	{ 8-18 8-17	756 00 756 00
Chelmsford, . . . . .	2	21	8	8	84 00	35 37	141-7	8-17	—	2	2	91	Taxation.	{ 8-17 9-17	756 00 1,900 00
Concord, . . . . .	2	29	4	4	190 00	58 93	136-15	9-15	—	1	7	190	Taxation.	—	—
Dracut, . . . . .	—	15	10	10	—	43 37	107-12	8-19	—	—	—	—	—	—	—
Dunstable, . . . . .	—	3	3	3	—	33 58	26-5	8-15	—	—	—	—	—	—	—
Everett, . . . . .	9	124	54	47	131 56	53 67	647-3	8-6	—	1	9	332	Taxation.	9-8	1,780 00
Framingham, . . . . .	4	56	27	22	142 50	46 18	375-7	8-19	—	1	6	269	Taxation.	9-15	2,000 00
Groton, . . . . .	1	19	6	1	136 84	40 35	119-5	8-15	—	1	2	50	Taxation.	9-10	1,300 00
Holliston, . . . . .	2	15	7	4	90 00	42 91	109-18	8-9	—	1	2	66	Taxation.	9-10	900 00
Hopkinton, . . . . .	1	19	7	1	100 00	41 64	166	9-5	—	1	3	100	Taxation.	10	1,000 00
Hudson, . . . . .	3	27	8	4	113 16	38 00	182-10	9-2	—	1	4	121	Taxation.	9-10	1,200 00
Lexington, . . . . .	2	22	5	5	130 00	49 37	142-10	9-10	—	1	3	55	Taxation.	9-10	1,300 00
Lincoln, . . . . .	2	8	3	2	88 43	46 00	48-15	9-15	—	1	1	26	Taxation.	9-15	884 23

# SCHOOL RETURNS.

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	1	10	2	80 00	42 76	65-4	9-11	-	1	2	46	Taxation.	10	800 00
Littleton, . . .	19	297	32	163 00	62 26	2,294	9-6	-	1	21	925	Taxation.	9-9	2,500 00
Lowell, . . .	11	141	57	161 25	59 45	1,119-5	9-5	-	1	15	503	Taxation.	9-10	1,800 00
Malden, . . .	2	63	6	145 00	52 00	428-12	8-10	-	1	8	231	Taxation.	10	1,300 00
Marlborough, . . .	1	21	7	110 00	43 71	126-15	9-15	-	1	3	65	Taxation.	9-15	1,100 00
Medford, . . .	11	74	27	130 00	57 13	502-14	9-8	-	1	16	471	Taxation.	9-15	2,500 00
Melrose, . . .	4	58	26	113 75	54 26	446-14	9-15	-	1	8	269	Taxation.	10	2,000 00
Natick, . . .	4	52	27	125 53	50 80	331-10	9	-	1	8	257	Taxation.	10	1,800 00
Newton, . . .	17	134	72	193 53	58 88	960	10	-	1	20	590	Taxation.	10	3,250 00
North Reading, . . .	5	3	3	-	45 26	35	8-15	-	1	1	26	Taxation.	8-15	528 00
Pepperell, . . .	2	19	10	100 00	38 04	152	9-1	-	1	2	69	Taxation.	10	1,000 00
Reading, . . .	2	26	10	170 00	47 70	172-3	9-12	-	1	4	171	Taxation.	9-10	1,700 00
Sherborn, . . .	8	1	1	-	34 90	42-10	8-10	-	1†	1	30	Part tax.	9-5	850 00
Shirley, . . .	-	13	8	-	37 38	64-5	9-2	-	-	-	-	-	-	-
Somerville, . . .	24	238	89	163 41	64 44	1,607-11	9-10	-	2	30	792	Taxation.	9-11	2,420 00
Stoneham, . . .	1	34	13	170 00	45 84	216-11	8-17	-	1	4	124	Taxation.	9-11	2,420 00
Stow, . . .	2	6	2	88 88	34 40	54	9	-	1	1	22	Part tax.	9-10	1,700 00
Sudbury, . . .	1	8	1	128 82	40 84	52-10	8-15	-	1	2	40	Taxation.	9	800 00
Tewksbury, . . .	1	18	10	90 00	40 92	107-4	8-18	-	1	2	36	Taxation.	8-15	1,100 00
Townsend, . . .	-	15	3	-	35 70	84-1	9-7	-	1	2	41	Taxation.	9-17	690 00
Tyngsborough, . . .	-	7	5	-	45 88	36-9	9-2	-	1	1	18	Taxation.	10-5	400 00
Wakefield, . . .	3	48	14	180 00	49 15	284-1	9-15	-	1	6	221	Taxation.	9-7	504 00
Waltham, . . .	8	82	38	144 00	54 66	523-17	9-7	-	1	10	231	Taxation.	9-17	1,800 00
Watertown, . . .	6	39	11	160 00	57 66	239-6	9-11	-	1	5	109	Taxation.	9-7	2,300 00
Wayland, . . .	1	19	11	94 44	50 00	111	9-5	-	1	2	17	Taxation.	9-16	2,000 00
Westford, . . .	-	23	6	-	37 00	132-11	8-5	-	1	2	-	-	9-5	720 00
Weston, . . .	1	7	2	154 70	56 50	54-7	9-1	-	-	3	57	Taxation.	-	1,400 00
Wilmington, . . .	1	8	3	60 00	39 12	77-15	9	-	1	1	26	Taxation.	9-15	600 00
Winchester, . . .	4	32	12	123 33	48 80	270	10	-	1	8	209	Taxation.	10	2,000 00
Woburn, . . .	6	62	1	118 33	53 90	540	10	-	1	9	263	Taxation.	10	1,900 00
Totals, . . .	197	2,431	936	\$149 97	\$55 49	17,222-13	9-2	-	50	291	8,745	-	9-12	\$73,628 23

† United with Sawin Academy.

\* Howe incorporated Academy.

## MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including wages of teachers, board, transportation, fuel, care of fires and schoolrooms, for the school year 1886-87.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Acton, . . .	\$4,957 50	\$257 50	\$117 31	\$240 00	\$495 88	\$54 68	—	\$575 01	\$338 74	\$6,774 07
Arlington, . . .	26,853 00	—	200 00	1,215 00	2,251 92	3,320 21	\$25,035 53	237 23	939 36	60,072 25
Ashby, . . .	1,800 00	131 00	—	192 90	370 74	15 00	—	—	110 00	2,488 64
Ashland, . . .	5,500 00	800 00	65 00	300 00	500 00	—	—	—	48 00	6,413 00
Ayer, . . .	5,200 00	—	—	340 00	730 67	36 66	—	174 54	456 91	6,938 78
Bedford, . . .	3,530 24	876 50	—	200 00	239 14	72 53	—	110 52	12 37	4,224 80
Belmont, . . .	11,240 29	—	50 00	1,000 00	1,630 18	288 24	—	—	374 79	14,583 50
Billerica, . . .	6,810 95	—	180 00	500 00	440 09	122 43	—	—	301 46	8,354 93
Boxborough, . . .	800 00	—	—	35 00	104 87	45 73	—	—	129 43	1,115 03
Burlington, . . .	1,563 28	—	22 50	100 00	92 88	110 17	—	—	74 92	1,963 75
Cambridge, . . .	279,990 12	—	2,750 00	3,000 00	20,699 84	1,609 65	42,884 10	18,394 29	8,761 06	378,089 06
Carlisle, . . .	1,000 00	103 00	—	187 50	138 95	—	—	—	59 14	1,385 59
Chelmsford, . . .	7,216 67	108 50	60 00	450 00	664 18	13 60	1,799 71	6,649 10	469 13	17,322 39
Concord, . . .	18,218 00	1,968 00	50 00	500 00	1,530 12	526 02	—	—	1,245 21	22,069 35
Dracut, . . .	7,976 47	570 00	—	360 00	525 27	208 72	—	—	834 59	9,905 05
Dunstable, . . .	1,330 45	614 12	15 00	112 50	63 76	3 10	—	139 97	4 79	1,669 57
Everett, . . .	62,005 09	—	500 00	1,880 00	6,444 15	5,670 24	19,605 75	19,900 25	3,535 64	119,541 12
Frammingham, . . .	34,634 24	2,219 92	—	2,000 00	3,000 00	2,437 58	8,594 78	997 75	1,995 50	53,659 85
Groton, . . .	7,100 00	—	101 66	480 00	850 81	43 00	—	350 00	130 00	9,055 47
Holliston, . . .	8,629 54	1,156 86	153 43	425 00	715 91	20 00	4,704 02	—	455 41	15,103 31
Hopkinton, . . .	9,000 00	466 85	—	450 00	636 20	10 00	—	—	245 35	10,341 55
Hudson, . . .	14,760 00	427 50	300 00	—	1,499 21	243 83	—	200 00	1,199 12	18,202 16
Lexington, . . .	15,034 93	2,834 38	300 00	300 00	888 69	887 99	—	213 41	491 90	18,116 92

## SCHOOL RETURNS.

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Lincoln, .	4,042 13	791 70	50 00	200 00	366 86	60 70	-	713 08	259 60	5,632 37
Littleton, .	4,645 66	588 00	3 32	170 00	364 23	64 33	-	1,022 06	169 77	6,439 37
Lowell, .	240,892 50	-	198 50	3,000 00	10,999 77	27,463 68	144,566 66	-	22,108 38	449,229 49
Malden, .	106,277 43	-	250 00	2,500 00	5,481 28	10,752 53	106,159 18	20,958 09	7,687 18	260,065 69
Marlborough, .	39,835 81	750 00	40 00	2,100 00	3,810 97	1,120 97	-	2,706 00	2,491 38	52,105 13
Maynard, .	8,611 49	-	225 00	-	912 45	15 00	-	-	422 45	10,186 39
Medford, .	62,750 25	600 00	637 50	2,500 00	6,363 90	3,134 71	-	21,501 79	2,615 42	99,508 57
Melrose, .	42,195 76	-	-	2,000 00	5,184 87	1,873 98	64,214 64	1,948 06	1,924 96	119,342 27
Natick, .	27,881 30	-	-	1,500 00	2,106 67	1,296 76	-	8,123 60	2,211 57	43,119 90
Newton, .	133,723 29	197 00	700 00	3,800 00	8,085 24	3,657 13	47,413 91	12,472 17	515 73	210,367 47
North Reading, .	2,993 91	900 00	60 00	90 00	275 09	12 00	-	-	154 20	3,585 20
Pepperell, .	11,140 00	500 00	11 60	321 42	1,231 06	-	-	255 00	160 00	13,119 08
Reading, .	14,672 03	-	-	1,000 00	1,387 87	1,128 84	-	110 21	510 94	18,809 89
Sherborn, .	3,703 00	1,278 00	137 75	150 00	250 00	2 00	-	-	153 40	4,416 15
Shirley, .	2,395 00	45 00	120 00	214 28	242 37	40 55	3,912 61	-	165 45	7,090 26
Somerville, .	182,642 21	-	1,650 00	2,850 00	16,567 34	1,033 94	61,016 04	9,296 56	23,943 86	298,999 95
Stoneham, .	17,300 00	-	125 00	1,000 00	1,073 15	638 27	-	-	1,195 35	21,331 77
Stow, .	1,550 00	-	-	100 00	213 44	30 00	-	149 34	74 67	2,117 45
Sudbury, .	5,100 00	1,366 10	88 47	-	491 11	25 00	-	117 47	-	5,822 05
Tewksbury, .	6,442 74	293 40	150 00	360 00	496 96	508 17	835 47	-	303 90	9,097 24
Townsend, .	5,000 00	466 30	-	235 68	152 88	-	-	-	183 76	5,572 32
Tyngsborough, .	3,526 06	894 00	-	165 00	165 33	35 66	-	-	-	3,892 05
Wakefield, .	25,680 80	-	-	1,500 00	1,998 12	1,085 60	7,500 00	639 00	1,147 14	39,550 66
Waltham, .	68,235 07	1,196 25	400 00	2,300 00	2,950 00	1,000 00	-	23,699 93	4,410 03	102,995 03
Watertown, .	26,689 92	860 95	300 00	1,200 00	2,088 39	-	1,700 00	-	2,344 09	34,322 40
Wayland, .	7,997 40	599 50	-	318 58	541 01	-	13,481 00	-	216 57	22,554 56
Westford, .	7,100 00	-	93 22	340 00	773 53	25 00	-	40 55	170 39	8,542 74
Weston, .	9,803 68	2,841 25	450 00	-	974 08	440 91	10,458 73	449 71	623 03	23,200 14
Wilmington, .	3,500 00	597 00	115 00	-	512 62	76 76	7,000 00	-	32 03	11,236 41
Winchester, .	25,500 38	600 00	-	1,000 00	2,177 74	2,366 06	11,411 26	3,532 00	344 00	46,331 44
Woburn, .	44,551 41	84 00	146 90	2,000 00	3,091 53	1,321 83	10,087 24	9,325 70	-	70,524 61
Totals, .	\$1,681,590 00	\$27,982 58	\$10,837 16	\$47,182 86	\$125,843 32	\$74,949 76	\$592,380 63	\$165,022 39	\$98,747 07	\$2,796,553 19





## SCHOOL RETURNS.

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Lincoln, . . .	1,209 00	46 21	-	176 13	2	176	-	-	-	-	-	-	158 39
Littleton, . .	3,500 00	210 00	-	-	-	-	-	15,000 00	13	5,730	-	-	362 58
Lowell, . . .	-	-	-	-	-	-	-	-	3	1,200	9,000 00	-	-
Malden, . . .	-	-	-	-	-	-	-	-	1	361	3,300 00	-	-
Marlborough, .	2,700 00	157 04	-	-	-	-	-	-	1	10	3,000 00	212 58	-
Maynard, . . .	-	-	-	-	-	-	-	-	1	-	500 00	-	-
Medford, . . .	-	-	-	-	-	-	-	-	1	30	-	-	-
Melrose, . . .	-	-	-	-	-	-	-	-	7	834	10,000 00	-	-
Natick, . . .	-	-	-	-	-	-	-	23,500 00	7	-	13,700 00	-	-
Newton, . . .	-	-	-	2,568 42	3	310	-	-	-	-	-	362 57	-
North Reading, .	-	-	-	-	-	-	-	-	-	-	-	266 77	\$17 95
Pepperell, . .	-	-	-	-	-	-	-	-	-	-	-	-	-
Reading, . . .	-	-	-	-	1*	-	-	-	1	7	125 00	362 57	-
Sherborn, . . .	14,731 00	1,155 40	-	121 41	-	-	-	-	-	-	-	362 57	-
Shirley, . . .	11,040 57	430 58	-	133 52	-	-	-	-	2	1,410	-	-	-
Somerville, . .	-	-	-	-	-	-	-	-	-	-	-	-	-
Stoneham, . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
Stow, . . .	14,725 00	750 00	-	126 54	-	-	-	-	-	-	-	308 38	-
Sudbury, . . .	1,151 00	46 04	-	222 87	-	-	-	-	-	-	-	316 77	56 00
Tewksbury, . .	3,000 00	150 00	-	-	-	-	-	-	-	-	-	262 57	-
Townsend, . . .	-	-	-	-	-	-	-	-	-	-	-	262 57	18 21
Tyngsborough, .	2,222 22	110 27	-	-	-	-	-	-	-	-	-	462 57	-
Wakefield, . .	-	-	-	-	-	-	-	-	-	-	-	-	-
Waltham, . . .	-	-	-	-	1	60	2,800 00	-	3	38	744 00	-	-
Watertown, . .	-	-	-	-	-	-	-	-	1	400	4,000 00	-	-
Wayland, . . .	200 00	12 00	-	153 61	-	-	-	-	-	-	-	230 06	-
Westford, . . .	50,108 74	2,108 59	-	-	1	32	864 00	-	-	-	-	262 57	-
Weston, . . .	-	-	-	-	-	-	-	-	-	-	-	266 76	-
Wilmington, . .	-	-	-	125 40	-	-	-	-	-	-	-	362 57	90 64
Winchester, . .	-	-	-	-	-	-	-	-	1	10	500 00	-	-
Woburn, . . .	-	-	-	-	1	360	-	-	1	394	-	-	-
Totals, . . .	\$983 60	\$8,144 89	\$9,082 89	12	1,135	\$114,914 00	54	13,123	\$117,389 00	\$9,516 47	\$182 80	-	-

\* United with High School.

## BOARD OF EDUCATION.

## NANTUCKET COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1896.	No. of Public Schools.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Nantucket,	3,016	\$2,975,659	12	450	380	350	1	60	240	300	280	.93	13

## NORFOLK COUNTY.

Avon,	1,626	\$785,120	7	260	160	297	—	14	157	262	232	.89	7
Bellingham,	1,481	727,115	10	276	173	314	—	15	185	253	237	.94	10
Braintree,	5,311	4,338,375	26	849	499	1,124	60	60	616	967	890	.93	28
Brookline,	16,164	60,996,800	76	2,529	1,453	3,050	239	375	1,453	2,635	2,425	.92	110
Canton,	4,636	3,948,930	17	777	477	654	15	68	321	531	502	.94	21
Cohasset,	2,474	4,585,275	12	375	208	449	—	85	228	388	346	.89	17
Dedham,	7,211	8,782,541	40	1,260	727	1,339	11	172	720	1,320	1,221	.92	47
Dover,	668	830,983	4	89	62	113	1	6	61	83	71	.86	4
Foxborough,	3,219	1,854,360	13	518	302	605	6	61	314	459	419	.91	15
Franklin,	5,136	2,928,825	16	798	486	719	1	89	403	586	533	.90	19
Holbrook,	2,298	1,206,710	12	418	266	548	—	17	284	421	393	.93	14
Hyde Park,	11,826	9,007,095	42	2,221	1,536	2,054	5	336	1,263	1,614	1,508	.93	50
Medfield,	1,872	1,315,127	8	230	128	314	1	48	141	247	229	.93	8
Medway,	2,913	1,433,130	16	463	311	634	12	74	303	503	475	.94	17
Millis,	1,006	752,980	5	156	103	171	1	9	99	151	136	.90	6
Milton,	5,518	19,054,000	35	1,030	716	1,267	116	147	579	1,015	930	.92	47
Needham,	3,511	2,978,316	16	617	362	715	—	82	409	632	581	.92	20

## SCHOOL RETURNS.

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Norfolk, .	.	882	515,138	6	151	84	155	-	12	74	143	118	.83	6
Norwood, .	.	4,574	3,519,900	19	841	493	976	-	77	567	922	869	.94	24
Quincy, .	.	20,712	17,580,515	103	4,702	2,635	4,683	-	268	2,609	3,788	3,680	.97	110
Randolph, .	.	3,694	1,883,700	17	585	339	713	1	56	385	637	594	.93	19
Sharon, .	.	1,717	1,886,642	8	222	127	265	-	17	163	202	181	.90	8
Stoughton, .	.	5,272	2,854,244	18	835	484	857	1	42	468	674	626	.93	24
Walpole, .	.	2,994	2,294,461	13	499	286	601	1	52	328	476	431	.90	16
Wellesley, .	.	4,229	7,194,585	17	625	401	665	3	82	375	559	505	.90	22
Weymouth, .	.	11,291	6,532,022	48	1,874	1,441	2,291	-	179	1,421	1,974	1,855	.94	68
Wrentham, .	.	2,584	1,474,604	16	469	286	585	-	34	341	482	444	.92	18
Totals, .	.	134,819	\$171,261,493	620	23,669	14,545	26,158	474	2,477	14,267	21,927	20,431	.93	755

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.						Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Months.	Length.	
Nantucket, . .	1	12	2	2	\$100 00	\$32 50	106	10	-	1	2	80	Taxation.	10	\$1,000 00	

NORFOLK COUNTY — CONTINUED.

Avon, . .	1	8	6	5	\$91 64	\$37 98	60	9	-	1	1	33	Taxation.	9		\$824 92
Bellingham, .	1	14	3		42 00	36 20	90-15	9-3	-	1	1	17	Taxation.	9-15		420 00
Braintree, . .	3	30	15	15	92 63	45 20	241-7	9-10	-	1	4	109	Taxation.	9-11		1,400 00
Brookline, . .	7	103	-	-	157 00	68 00	762	9-18	-	1	13	303	Taxation.	9-18		3,500 00
Canton, . .	2	20	5	4	115 00	47 68	170	10	-	1	3	65	Taxation.	10		1,500 00
Cohasset, . .	2	15	6	6	170 00	42 00	117-11	9-15	-	1	3	57	Taxation.	10		1,700 00
Dedham, . .	5	42	26	25	126 00	53 63	384	9-12	-	1	6	157	Taxation.	9-10		2,000 00
Dover, . .	-	5	2	2	-	39 00	36-10	9-12	-	1	1	8	Taxation.	9-10		418 00
Foxborough, .	1	19	8	7	138 88	41 85	117	9	-	1	2	53	Taxation.	9		1,250 00
Franklin, . .	1	26	7	6	80 00	42 96	131-11	8-15	-	1	4	109	Taxation.	9-12		800 00
Holbrook, . .	1	17	7	5	120 00	40 80	118-10	9-17	-	1	3	78	Taxation.	10		1,200 00
Hyde Park, . .	7	43	14	8	121 25	52 14	386-8	9-4	-	1	7	288	Taxation.	10		2,000 00
Medfield, . .	1	7	6	5	122 22	46 82	73-10	9-4	-	1	1	49	Taxation.	9-5		1,100 00
Medway, . .	2	19	10	10	100 00	34 43	145-10	9-1	-	1	2	61	Taxation.	10		1,000 00
Millis, . .	2	9	6	5	70 00	32 08	39-10	9	-	1	2	24	Taxation.	10		1,000 00
Milton, . .	5	42	15	13	148 75	55 00	350	10	-	1	7	180	Taxation.	10		2,100 00
Needham, . .	3	24	2	4	98 00	40 21	152-10	9-11	-	1	2	69	Taxation	10		1,200 00

## SCHOOL RETURNS.

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Norfolk, . . . . .	2	10	1	40 00	38 40	40-15	8-5	-	1	1	23	Taxation.	8-5	396 00
Norwood, . . . . .	3	21	15	125 00	44 00	185-10	9-16	-	1	4	117	Taxation.	10	1,250 00
Quincy, . . . . .	15	136	53	120 90	50 22	937-6	9-2	-	1	9	349	Taxation.	9	2,100 00
Randolph, . . . . .	3	16	3	122 80	41 92	161-10	9-10	-	1	3	92	Part tax.	9-10	1,500 00
Sharon, . . . . .	1	11	3	80 00	42 25	79-15	9-19	-	1	1	30	Taxation.	9-15	800 00
Stoughton, . . . . .	1	23	5	120 00	42 00	154	9	-	1	3	71	Taxation.	9-10	1,200 00
Walpole, . . . . .	1	21	6	120 00	42 66	128-14	9-18	-	1	3	60	Taxation.	9-18	1,200 00
Wellesley, . . . . .	2	20	9	120 00	55 38	163-5	9-12	-	1	4	84	Taxation.	10-5	2,000 00
Weymouth, . . . . .	13	55	20	86 25	48 20	468	9-15	-	2	7	215	Taxation.	{ 9-15 9-15 9-10 9-10	1,400 00 1,800 00 760 00 760 00
Wrentham, . . . . .	2	25	9	80 00	37 25	149-19	9-8	-	2	3	96	Taxation.	{ 9-10 9-10	760 00 760 00
Totals, . . . . .	87	781	262	\$113 52	\$49 27	5,845-6	9-8	-	29	100	2,797	-	9-12	\$33,078 92

## NANTUCKET COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including wages of teachers, board, fuel, care of fires and schoolrooms, for the school year 1896-97.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Nantucket,	\$5,111 75	—	\$100 00	—	\$431 87	\$399 92	—	—	\$381 23	\$6,424 77

## NORFOLK COUNTY — CONTINUED.

Avon,	\$3,995 91	—	\$128 75	—	\$314 89	—	\$6,438 63	—	—	\$10,878 18
Bellingham,	3,736 85	\$100 00	29 50	\$250 00	366 00	\$62 74	3,661 87	\$15 50	\$235 11	8,357 57
Braintree,	15,538 63	795 50	50 00	1,200 00	1,730 82	345 70	—	608 48	426 08	19,899 71
Brookline,	103,250 00	300 00	460 00	4,000 00	5,989 19	12,089 40	26,127 32	—	2,995 42	154,911 33
Canton,	13,800 00	300 00	25 00	1,000 00	500 00	75 00	—	2,000 00	1,600 00	19,000 00
Cohasset,	11,557 49	1,969 37	75 00	700 00	855 47	187 44	—	—	572 58	13,947 98
Dedham,	33,267 56	450 00	—	2,058 30	2,580 27	1,133 13	—	690 75	1,682 55	41,412 56
Dover,	2,132 83	322 75	25 00	75 00	230 92	—	—	—	133 64	2,597 39
Foxborough,	7,912 00	312 00	175 00	345 00	728 78	57 49	14,776 22	—	202 11	24,196 60
Franklin,	11,263 16	933 45	50 00	1,000 00	803 15	991 51	—	—	649 63	14,757 45
Holbrook,	7,746 93	—	300 00	—	696 06	409 00	—	—	216 50	9,368 49
Hyde Park,	35,827 53	—	700 00	—	2,456 72	2,161 55	—	1,102 42	1,183 70	43,431 92
Medfield,	4,371 90	—	120 00	—	387 61	89 53	—	—	41 04	5,010 08
Medway,	8,000 00	488 50	220 20	425 00	586 26	504 87	—	370 75	223 53	10,330 61
Millis,	2,776 25	150 00	81 00	75 00	263 67	238 57	—	125 43	42 45	3,602 37
Milton,	38,111 86	1,941 00	50 00	2,500 00	4,219 84	976 48	—	6,000 00	886 94	52,745 12
Needham,	11,181 57	12 00	280 00	1,000 00	1,043 81	543 20	—	132 14	417 13	14,597 85

## SCHOOL RETURNS.

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Norfolk, .	2,559 20	475 00	97 00	90 00	286 71	-	-	1,176 46	192 25	4,401 62
Norwood, .	15,169 98	39 23	-	1,300 00	1,504 00	40 00	-	2,328 00	783 00	21,124 98
Quincy, .	73,998 47	-	-	2,500 00	6,747 92	1,500 00	58,649 82	8,987 35	2,691 83	155,075 39
Randolph, .	9,849 69	-	362 00	-	752 37	20 00	-	550 68	369 10	11,903 84
Sharon, .	3,600 00	-	25 00	180 00	350 00	-	1,000 00	107 00	400 00	5,662 00
Stoughton, .	10,755 64	-	207 50	360 00	1,562 71	408 15	15,275 56	-	183 29	28,752 85
Walpole, .	9,748 39	-	-	345 00	717 08	101 80	-	8,500 00	197 37	19,609 64
Wellesley, .	17,308 84	309 40	-	1,500 00	2,447 75	-	-	-	734 73	21,991 32
Weymouth, .	36,836 25	2,153 77	300 00	1,800 00	2,913 04	663 04	-	-	2,732 98	45,245 31
Wrentham, .	8,650 00	450 00	205 00	450 00	783 63	22 50	-	273 96	1,018 56	11,403 65
Totals, .	\$502,946 93	\$11,501 97	\$3,965 95	\$23,153 30	\$41,818 67	\$22,621 10	\$125,929 42	\$32,968 92	\$20,811 52	\$774,215 81

## NANTUCKET COUNTY -- CONCLUDED.

TOWNS.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1897.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Nantucket,	1	1	1	\$252 60	1	60	\$500 00	1	1	1	1	1

NORFOLK COUNTY — CONCLUDED.

[illegible]



### SCHOOL RETURNS.

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Norfolk,	-	-	-	-	-	-	-	-	-	1	14	-	362 58
Norwood,	-	-	-	-	-	-	-	-	-	4	220	250 00	-
Quincy,	-	-	-	-	-	-	-	-	-	-	-	4,500 00	-
Randolph,	-	13,500 00	664 00	447 88	-	-	-	-	-	-	-	-	262 57
Sharon,	-	2,360 00	141 60	153 00	-	-	-	-	-	-	-	-	208 38
Stoughton,	-	100 00	-	-	-	1	200	1,200 00	-	-	-	-	158 38
Walpole,	-	-	-	-	-	1	23	2,300 00	-	4	137	19,725 00	212 57
Wellesley,	-	-	-	-	-	1	819 11	-	-	-	-	-	4 50
Weymouth,	-	-	-	-	-	-	446 19	-	-	-	-	-	54 80
Wrentham,	-	1,818 26	105 58	-	-	-	-	-	-	-	-	-	-
Totals,	\$1,647 00	\$80,514 46	\$1,542 96	\$4,991 32	5	601	\$30,260 75	24	1,875	\$26,615 00	\$4,501 22	\$190 57	

## BOARD OF EDUCATION.

## PLYMOUTH COUNTY.

TOWNS.	Population—State Census, 1895.	Valuation—1896.	No. of Public Schools.	No. of persons in town May 1, 1896, between 5 and 15 years of age.	No. of persons in town May 1, 1896, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Abington, .	4,207	\$2,287,994	16	660	389	818	7	88	461	679	637	.94	25
Bridgewater, .	4,686	2,285,568	20	534	303	767	58	101	376	599	556	.93	28
Brockton, .	33,165	24,672,561	134	5,866	3,377	6,273	-	837	3,433	5,352	4,914	.92	143
Carver, .	1,016	822,775	7	144	113	192	-	13	124	147	125	.85	7
Duxbury, .	1,966	1,543,506	10	274	175	326	1	51	226	254	232	.91	11
East Bridgewater, .	2,894	1,426,804	13	431	255	509	-	40	298	435	409	.94	15
Halifax, .	497	268,071	3	76	48	84	-	10	47	66	63	.95	3
Hanover, .	2,051	1,212,950	9	302	184	368	1	36	183	374	339	.91	10
Hanson, .	1,880	662,339	8	206	130	225	5	8	153	180	165	.92	8
Hingham, .	4,819	4,082,508	17	653	397	838	13	113	415	698	640	.92	21
Hull, .	1,044	3,717,150	4	120	73	166	3	6	107	114	107	.94	4
Kingston, .	1,746	1,421,360	9	286	208	352	5	44	207	291	273	.94	11
Lakeville, .	870	490,475	6	132	70	137	3	2	70	112	90	.80	6
Marion, .	759	930,800	6	150	99	159	-	9	99	133	122	.92	6
Marshfield, .	1,760	1,318,125	11	202	124	306	-	35	155	248	230	.93	12
Mattapoisett, .	1,032	1,445,859	6	140	90	158	4	24	90	138	126	.92	6
Middleborough, .	6,689	3,865,021	28	983	581	1,211	-	114	632	948	881	.93	31
Norwell, .	1,540	864,525	9	233	155	288	4	28	147	262	239	.91	11
Pembroke, .	1,223	636,570	8	192	119	210	3	15	127	180	165	.92	8
Plymouth, .	7,957	6,947,700	44	1,314	853	1,651	-	297	813	1,322	1,240	.94	46
Plympton, .	549	315,259	3	63	38	63	-	1	38	58	53	.91	3
Rochester, .	1,021	504,169	6	158	97	174	1	14	97	122	101	.83	6

Rockland, .	5,523	3,016,270	23	930	552	1,054	—	117	639	966	897	.93	26
Scituate, .	2,246	2,319,080	11	436	249	403	1	44	243	354	322	.90	12
Wareham, .	3,367	2,073,213	20	509	370	609	3	62	370	500	453	.91	21
West Bridgewater, .	1,747	1,011,041	9	261	168	327	4	12	198	247	225	.91	9
Whitman, .	5,744	3,619,078	20	865	578	1,131	—	80	675	947	898	.95	31
Totals, .	101,498	\$73,760,771	460	16,120	9,795	18,799	116	2,201	10,423	15,726	14,502	.92	520

## SUFFOLK COUNTY.

Boston, .	496,920	\$981,269,913	1,461	78,561	36,332	79,852	1,850	7,403	38,330	70,192	62,317	.89	1,684
Chelsea, .	31,264	22,918,094	86	5,634	3,250	5,667	—	810	2,946	4,456	4,087	.92	108
Revere, .	7,423	7,886,200	37	1,729	888	1,873	—	82	964	1,413	1,333	.94	42
Winthrop, .	4,192	5,676,035	16	708	428	807	—	82	417	659	616	.93	25
Totals, .	539,799	\$1,017,745,242	1,600	86,632	40,898	88,199	1,850	8,377	42,657	76,720	68,353	.89	1,859

## BOARD OF EDUCATION.

## PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Ave wages per month of male teachers in Public Schools.	Ave wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Months. Days.	
Abington, .	3	29	22	20	\$120 00	\$44 58	147-8	9-4	-	1	4	115	Taxation.	9-14	\$1,200 00
Bridgewater, .	2	30	27	26	160 00	66 40	179-18	8-19	-	1	5	83	Taxation.	9-10	1,600 00
Brockton, .	14	133	78	62	129 00	50 00	1,340	10	-	1	14	466	Taxation.	10	2,000 00
Carver, .	1	9	4	2	36 00	33 68	57	8-3	-	1*	-	-	-	-	-
Duxbury, .	3	8	4	2	68 33	38 00	90-13	9-1	-	1	2	69	Part tax.	10	1,000 00
E. Bridgewater, .	2	24	11	11	100 00	42 33	114-15	8-16	-	1	2	59	Taxation.	9-17	1,000 00
Halifax, .	1	5	2	2	45 00	29 64	29-15	8-18	-	1	-	-	-	-	-
Hanover, .	1	13	-	-	90 00	35 50	84-10	9-8	-	1	2	54	Taxation.	10	900 00
Hanson, .	1	9	4	3	46 00	36 64	72	9	-	-	-	-	-	-	-
Hingham, .	1	20	5	5	120 00	44 70	161-16	9-10	-	1	4	132	Taxation.	10	1,600 00
Hull, .	2	2	4	4	77 50	40 00	39	9-15	-	1	-	-	-	-	-
Kingston, .	3	13	6	5	100 00	39 60	84	9-6	-	1	2	82	Taxation.	10	1,000 00
Lakeville, .	1	16	3	1	32 00	30 66	48	8	-	-	-	-	-	-	-
Marion, .	-	6	-	-	-	36 00	54	9	-	-	-	-	-	-	-
Marshfield, .	1	17	2	2	83 33	34 18	99	9	-	1	2	50	Taxation.	9	750 00
Mattapoisett, .	2	6	-	-	89 04	33 07	52-5	8-14	-	1	2	35	Part tax.	9-5	800 00
Middleborough, .	2	35	10	7	137 75	41 65	284	9-3	-	1	4	153	Taxation.	9-19	1,700 00
Norwell, .	1	14	1	2	94 73	32 99	85-10	9-10	-	1	3	49	Taxation.	9-10	900 00
Pembroke, .	3	9	3	2	41 00	31 28	68-17	8-12	-	1	1	27	Taxation.	8-10	437 50
Plymouth, .	5	48	10	8	100 00	40 64	400-8	9-2	-	1	6	174	Taxation.	9-13	1,500 00
Plympton, .	3	2	-	-	40 00	37 00	28-10	9-10	-	-	-	-	-	-	-
Rochester, .	-	12	4	2	-	34 00	52-19	8-16	-	-	-	-	-	-	-

Rockland, . . .	5	21	7	7	72 00	44 66	230	10	1	4	107	Taxation.	10	1,300 00
Scituate, . . .	2	17	4	3	80 00	45 00	99-10	9-2	1	2	61	Taxation.	9-10	1,000 00
Wareham, . . .	2	20	4	2	82 89	46 06	161-10	8-1	1	2	43	Taxation.	9-10	1,150 00
W. Bridgewater, . .	-	13	6	5	-	41 85	77-17	8-13	1†	5	40	Not by tax.	8-13	-
Whitman, . . .	4	32	12	12	91 66	45 00	200	10	1	5	132	Taxation.	10	1,800 00
Totals, . . .	68	563	233	193	\$94 14	\$43 89	4,343-1	9-8	19	71	1,931	-	9-12	\$21,637 50

## SUFFOLK COUNTY — CONTINUED.

Boston, . . .	225	1,572	1,050	1,050	\$257 70	\$79 33	14975	10-5	11	179	4,821	Taxation.	102-10	\$40,356 00
Chelsea, . . .	7	101	33	30	170 95	60 12	860	10	1	14	455	Taxation.	10	2,500 00
Revere, . . .	2	40	19	17	75 00	47 37	360-14	9 12	-	-	-	-	-	-
Winthrop, . . .	2	21	16	15	140 00	49 69	152	9-10	1	3	77	Taxation.	9-10	1,300 00
Totals, . . .	236	1,734	1,118	1,112	\$252 58	\$77 11	16347-14	10-4	13	196	5,353	-	10-3	\$44,156 00

\* Partridge Academy.

† United with Howard Seminary.

## PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for wages of teachers, board, transportation, fuel, care of offices and schoolrooms, for the school year 1896-97.	Expense for transportation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, census, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Abington, . .	\$14,238 20	\$486 00	\$295 50	\$625 00	\$1,095 15	\$15 00	—	\$796 95	\$1,271 93	\$18,327 73
Bridgewater, .	11,957 84	464 17	—	625 00	610 62	18 00	—	504 00	694 49	14,409 95
Brockton, . .	100,746 90	—	500 00	2,500 00	7,615 80	2,722 94	\$85,700 00	2,100 00	5,400 00	207,285 64
Carver, . . .	1,711 15	211 15	90 00	—	277 87	10 00	—	240 00	203 40	2,532 42
Duxbury, . .	4,000 00	—	107 10	250 00	543 68	25 00	—	—	448 53	5,374 31
E. Bridgewater, .	7,764 20	578 98	10 00	350 00	513 86	368 59	—	402 89	128 15	9,537 69
Halifax, . . .	1,200 00	317 25	—	55 00	76 71	—	—	—	90 72	1,422 43
Hanover, . . .	5,653 78	—	140 00	250 00	572 24	—	4,250 00	—	430 86	11,296 88
Hanson, . . .	2,250 00	—	140 00	250 00	400 00	30 00	—	—	200 00	3,270 00
Hingham, . . .	15,379 57	1,006 16	75 00	1,200 00	1,211 25	743 43	—	—	402 77	19,012 02
Hull, . . . .	7,015 00	1,601 42	170 00	220 00	289 91	492 02	—	—	121 25	8,308 18
Kingston, . . .	5,194 64	264 00	—	250 00	633 29	13 00	—	246 58	195 05	6,532 56
Lakeville, . .	1,500 00	202 15	—	—	104 31	—	—	126 00	23 60	1,818 11
Marion, . . . .	2,000 00	—	61 83	—	250 00	10 00	—	—	150 00	2,471 83
Marshfield, . .	3,800 00	300 00	90 00	250 00	812 16	60 00	—	327 00	216 25	5,555 41
Mattapoisett, .	3,117 65	233 50	162 49	—	499 40	135 26	—	449 86	109 46	4,471 12
Middleborough, .	17,351 65	1,836 72	150 00	1,700 00	1,227 53	595 12	—	736 58	161 94	21,922 82
Norwell, . . .	3,650 00	300 00	145 00	250 00	342 66	19 80	—	365 13	266 56	5,039 15
Pembroke, . . .	2,280 75	54 10	157 00	—	199 22	12 10	—	98 80	77 72	2,825 59
Plymouth, . . .	25,758 23	300 00	—	1,950 00	3,124 31	754 56	8,628 81	200 00	1,291 25	41,707 16
Plympton, . . .	800 00	—	—	50 00	73 80	—	—	—	3 00	926 80
Rochester, . . .	982 00	—	90 00	—	219 67	—	—	—	236 82	1,528 49

Rockland, . . .	16,484 11	—	573 25	—	1,273 34	—	—	—	1,158 50	19,489 20
Scituate, . . .	5,500 00	407 00	130 00	250 00	345 02	15 00	10,000 00	32 15	263 39	16,535 56
Wareham, . . .	7,923 32	—	365 67	—	682 95	—	1,662 77	—	149 17	10,783 88
W. Bridgewater, . .	3,767 17	288 00	10 00	250 00	255 80	—	—	—	337 89	4,620 86
Whitman, . . .	16,914 02	—	267 30	1,000 00	1,418 77	581 59	—	238 49	1,094 90	21,515 07
Totals, . . .	\$288,930 18	\$8,850 60	\$3,794 34	\$12,275 00	\$24,669 32	\$6,621 41	\$110,241 58	\$6,864 43	\$15,127 60	\$468,523 86

## SUFFOLK COUNTY — CONTINUED.

Boston, . . .	\$1,878,157 33	\$2,822 38	\$62,090 84	\$1,200 00	\$77,989 57	\$53,748 44	\$556,704 51	\$172,950 86	\$225,973 76	\$3,031,815 31
Chelsea, . . .	77,042 07	—	666 67	2,400 00	4,285 10	9,904 66	—	—	3,308 51	97,607 01
Revere, . . .	24,579 00	36 00	—	1,750 00	5,253 00	3,586 00	30,000 00	750 00	580 00	66,498 00
Winthrop, . . .	14,700 00	—	225 00	403 83	1,325 35	212 37	22,430 50	1,290 00	462 63	41,049 68
Totals, . . .	\$1,994,478 40	\$2,858 38	\$62,982 51	\$8,753 83	\$88,853 02	\$67,451 47	\$609,135 01	\$174,990 86	\$230,324 90	\$3,236,970 00





# SCHOOL RETURNS.

lxv

Rockland, .	-	-	-	-	-	-	-	-	-	-	-	180.06	54 80
Scituate, .	-	-	-	-	-	216 68	-	-	-	-	-	180 06	-
Wareham, .	-	-	-	-	-	-	-	-	-	-	-	230 06	20 00
W. Bridgewater,	-	-	-	-	1,911 00	-	-	27	3,500 00	-	-	362 57	57 86
Whitman, .	-	-	-	-	-	517 65	-	-	-	1	30	-	-
Totals,	\$255 00	\$167,627 00	\$8,070 60	\$5,584 51	4	168	\$3,840 00	10	850	\$8,750 00	\$6,169 74	\$188 66	

## SUFFOLK COUNTY — CONCLUDED.

Boston, .	-	\$71,589 88	\$1,908 00	\$41,632 89	3	208	\$10,875 00	76	12,231	\$257,110 57	-	-	-
Chelsea, .	-	-	-	5,232 50	-	-	-	3	984	750 00	-	-	-
Revere, .	-	-	-	-	-	-	-	-	-	-	-	-	-
Winthrop, .	-	-	-	414 95	-	-	-	-	-	-	-	-	-
Totals,	-	\$71,589 88	\$1,908 00	\$47,280 34	3	208	\$10,875 00	79	13,215	\$257,860 57	-	-	-

WORCESTER COUNTY.

TOWNS.	Population—State Census, 1886.	Valuation — 1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Asburnham,	2,148	\$1,071,760	13	374	234	451	2	61	231	391	363	.93	13
Athol,	7,364	3,838,066	24	1,050	602	1,140	—	152	602	936	898	.96	30
Auburn,	1,598	546,759	8	310	212	345	—	6	220	256	229	.89	9
Barre,	2,278	1,423,780	13	334	204	374	2	52	195	312	291	.93	13
Berlin,	897	478,810	5	164	112	174	—	1	104	121	110	.91	5
Blackstone,	6,039	2,621,572	22	698	445	954	—	70	403	700	655	.94	26
Bolton,	797	474,074	5	109	74	142	—	15	74	122	112	.92	5
Boylston,	729	523,371	5	124	76	134	2	9	94	108	98	.91	6
Brookfield,	3,279	1,360,910	17	577	385	687	—	20	409	548	510	.93	18
Charlton,	1,877	907,090	14	291	184	360	10	21	217	277	237	.86	14
Clinton,	11,497	7,108,869	37	2,149	1,263	1,945	—	118	1,085	1,704	1,613	.95	46
Dana,	717	303,209	5	86	61	106	—	10	61	87	85	.98	5
Douglas,	2,026	1,058,003	14	438	270	392	2	39	270	341	309	.90	13
Dudley,	3,203	1,052,695	13	560	316	479	10	36	241	344	327	.95	17
Fitchburg,	26,409	20,773,859	93	5,127	2,933	4,925	24	469	2,595	3,877	3,677	.95	111
Gardner,	9,182	5,085,856	36	1,635	967	1,854	4	133	1,115	1,560	1,445	.93	45
Grafton,	5,101	2,414,927	25	931	564	944	1	42	624	772	695	.90	28
Hardwick,	2,655	1,494,510	15	508	337	376	2	36	217	325	307	.94	16
Harvard,	1,162	925,892	9	148	79	196	9	6	86	150	136	.90	9
Holden,	2,602	1,199,092	15	461	352	569	—	23	356	429	395	.92	16
Hopedale,	1,374	2,264,685	6	242	132	298	—	34	149	227	216	.95	8
Hubbardston,	1,277	651,473	9	180	116	216	3	17	136	178	164	.92	9
Lancaster,	2,180	3,026,272	10	353	176	388	4	46	176	284	270	.95	13
Leicester,	3,259	2,208,689	16	558	334	663	7	58	382	529	493	.93	21
Leominster,	9,211	6,140,448	37	1,555	883	1,849	11	180	1,068	1,545	1,463	.95	46
Lunenburg,	1,237	761,698	8	179	105	235	4	23	125	178	167	.94	8

# SCHOOL RETURNS.

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Mendon, . . . . .	889	547,556	7	134	89	178	1	18	98	189	130	.94	7
Milford, . . . . .	8,959	5,429,517	34	1,459	874	1,576	6	175	830	1,320	1,253	.95	37
Milbury, . . . . .	5,222	2,289,655	20	913	540	1,018	5	53	535	779	737	.95	22
New Braintree, . . . . .	542	437,135	6	87	56	87	1	9	58	81	77	.95	6
Northborough, . . . . .	1,940	1,205,637	9	323	209	437	—	51	233	355	326	.92	9
Northbridge, . . . . .	5,286	3,129,286	28	1,152	648	1,381	—	111	835	1,118	1,060	.95	31
North Brookfield, . . . . .	4,635	1,779,635	16	933	515	724	—	98	380	527	496	.94	22
Oakham, . . . . .	605	316,437	5	115	85	121	2	4	73	102	98	.96	5
Oxford, . . . . .	2,390	1,255,084	13	402	260	486	8	30	289	396	368	.93	14
Faxton, . . . . .	426	287,623	2	59	36	76	1	5	43	56	46	.92	2
Petersham, . . . . .	952	643,200	6	107	74	120	1	12	74	107	101	.91	6
Phillipston, . . . . .	460	269,855	4	73	43	78	2	5	43	57	52	.91	4
Princeton, . . . . .	952	852,631	5	124	76	148	—	32	80	119	110	.92	8
Royalston, . . . . .	890	490,106	8	125	91	161	—	7	93	122	113	.92	8
Rutland, . . . . .	978	523,422	6	170	121	227	—	24	147	185	182	.98	7
Shrewsbury, . . . . .	1,524	1,018,738	10	247	148	275	—	28	248	248	229	.92	10
Southborough, . . . . .	2,223	1,476,827	10	358	217	345	2	24	202	290	261	.90	11
Southbridge, . . . . .	8,250	3,562,560	25	1,651	1,055	1,242	21	107	610	861	803	.93	31
Spencer, . . . . .	7,614	3,911,573	37	1,626	992	1,446	16	145	709	1,180	1,123	.95	42
Sterling, . . . . .	1,218	852,580	10	165	103	230	7	18	112	187	170	.91	12
Sturbridge, . . . . .	1,910	917,958	13	336	215	433	3	12	251	308	294	.96	13
Sutton, . . . . .	3,420	1,282,431	15	692	454	689	3	29	454	428	378	.88	15
Tamilton, . . . . .	2,915	1,279,419	15	560	394	521	4	52	314	445	417	.91	16
Upton, . . . . .	2,150	1,001,366	9	238	155	311	1	29	206	267	250	.93	9
Uxbridge, . . . . .	3,546	2,250,575	17	538	367	634	12	50	485	520	480	.92	19
Warren, . . . . .	4,430	2,728,113	24	912	482	999	1	110	534	805	751	.93	28
Webster, . . . . .	7,799	3,109,835	14	1,421	947	737	5	66	451	588	560	.95	17
Westborough, . . . . .	5,235	2,778,837	16	680	393	898	7	105	510	706	653	.92	22
West Boylston, . . . . .	2,968	1,271,660	15	468	322	708	2	76	416	506	471	.93	19
West Brookfield, . . . . .	1,467	761,878	8	240	155	270	1	17	155	200	188	.91	8
Westminster, . . . . .	1,315	654,733	11	238	133	287	5	34	180	236	217	.92	11
Winchendon, . . . . .	4,490	2,371,638	21	822	481	929	7	83	548	752	710	.91	27
Worcester, . . . . .	98,767	91,778,272	398	18,271	10,748	18,739	186	1,504	11,950	15,287	14,147	.93	466
Totals, . . . . .	306,445	\$212,182,141	1,311	54,780	32,894	56,708	407	4,800	33,381	45,578	42,516	.93	1,514

WORCESTER COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Public Schools.		Aggregate of months all the Public Schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		Salary of Principal.
					Avg wages per month of male teachers in Public Schools.	Avg wages per month of female teachers in Public Schools.								Months.	Days.	
Ashburnham,	1	15	4	2	\$158 00	\$33 00	101	7-16	-	1	1	89	Taxation	9-10		\$1,500 00
Athol, .	1	38	10	8	173 42	43 78	207-5	8-3	-	1	5	118	Taxation.	9-15		1,657 50
Auburn,	1	12	4	3	-	37 20	64	8	-	1	-	-	-	-		-
Barre, .	1	15	9	6	100 00	36 97	92-7	8-7	-	1	2	52	Taxation.	9-15		1,000 00
Berlin, .	1	7	3	3	-	33 00	41-16	8-7	-	1	-	-	-	-		-
Blackstone, .	1	28	2	2	115 00	40 16	220	10	-	1	3	88	Taxation	10		1,150 00
Bolton, .	1	7	5	3	45 00	35 33	48	9	-	1	1	37	Not by tax	9		500 00
Boylston, .	1	9	1	1	-	36 17	42-5	8-9	-	1	2	57	Taxation	10		1,100 00
Brookfield, .	1	24	3	1	110 00	36 11	136	8	-	1	-	-	-	-		-
Charlton, .	3	19	4	3	36 00	31 74	100-5	7-4	-	1	-	-	-	-		-
Clinton, .	2	44	12	4	130 00	51 32	343-15	9-15	-	1	5	132	Taxation.	9-11		1,600 00
Dana, .	1	7	1	1	-	30 53	42	8-8	-	1	-	-	-	-		-
Douglas, .	2	13	1	-	90 00	33 50	119	8-10	-	1	1	30	Taxation	9-14		900 00
Dudley, .	2	21	6	4	105 00	35 07	118	9-1	-	1	4	36	Part tax.	10		1,500 00
Fitchburg, .	15	112	48	30	130 00	52 00	880	9-10	-	1	21	661	Taxation.	9-10		2,700 00
Gardner, .	4	50	11	10	88 33	43 32	301-10	8-7	-	1	6	169	Taxation.	9-11		1,200 00
Grafton, .	1	31	14	11	155 55	41 37	225	9	-	1	3	108	Taxation.	9		1,400 00
Hardwick, .	1	19	9	7	82 68	34 26	131-2	8-14	-	1	2	34	Taxation.	9-13		800 00
Harvard, .	1	12	5	4	32 00	33 33	79-1	9	-	1	-	-	-	-		-
Holden, .	1	19	3	2	100 00	36 33	134	8-18	-	1	2	39	Taxation.	9-12		1,000 00
Hopedale, .	1	8	7	6	100 00	48 80	56	9 3	-	1	2	52	Taxation.	10		1,000 00
Hubbardston, .	1	13	5	3	30 00	34 20	74-5	8-5	-	1	1	15	Taxation.	8-5		412 50
Lancaster, .	2	16	3	6	115 00	41 50	95-10	9-10	-	1	3	75	Taxation.	10		1,700 00
Leicester, .	4	21	12	9	87 58	40 50	141-14	8-17	-	1*	4	71	Part tax	9-15		1,700 00
Leominster, .	5	41	8	7	111 33	42 54	332-5	9-10	-	1	9	189	Taxation.	9-14		1,700 00
Lunenburg, .	2	9	2	2	55 88	34 46	64-10	8-1	-	1	1	26	Taxation.	8-10		475 00
Mendon, .	1	10	3	3	-	37 65	55	8-14	-	1	1	15	Taxation.	8-17		500 00

## SCHOOL RETURNS.

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Millford, . . . . .	2	42	14	10	150 00	46 92	307	9-1	-	1	4	136	Taxation.	10	1,500 00
Millbury, . . . . .	4	24	19	13	80 73	37 80	181	9-1	-	1	3	121	Taxation.	10	1,350 00
New Braintree, . . . . .	-	10	2	5	-	34 00	45	7-10	-	-	-	-	-	-	-
Northborough, . . . . .	-	11	8	5	112 80	40 72	84-14	9-8	-	1	1	44	Taxation.	9-14	1,000 00
Northbridge, . . . . .	1	38	19	19	140 00	43 59	249-15	9-10	-	1	3	74	Taxation.	10	1,400 00
North Brookfield, . . . . .	2	22	1	1	110 00	43 00	133-5	8-9	-	1	2	82	Taxation.	10	1,200 00
Oakham, . . . . .	-	7	1	1	-	35 14	37-10	7-10	-	-	-	-	-	-	-
Oxford, . . . . .	6	15	8	5	69 33	33 42	118	9-1	-	1	2	60	Taxation.	10	1,000 00
Paxton, . . . . .	-	4	2	2	-	38 00	16-13	8-7	-	-	-	-	-	-	-
Petersham, . . . . .	-	6	3	2	-	31 66	50	8-7	-	-	-	-	-	-	-
Phillipston, . . . . .	-	7	5	5	-	34 68	33	8-5	-	-	-	-	-	-	-
Princeton, . . . . .	-	12	5	2	-	33 71	41-7	8-5	-	1	2	36	Taxation	9	600 00
Royalston, . . . . .	1	12	3	3	30 00	31 75	57-10	7-4	-	-	-	-	-	-	-
Rutland, . . . . .	3	8	2	1	46 00	33 33	45-10	7-11	-	1	2	33	Taxation.	8	480 00
Shrewsbury, . . . . .	2	14	3	-	84 20	36 00	81-5	8-2	-	1	1	33	Taxation.	9-10	800 00
Southborough, . . . . .	2	10	6	4	80 55	42 00	81-10	9-1	-	1	2	41	Taxation	9-10	950 00
Southbridge, . . . . .	2	36	8	6	95 00	38 88	220-16	9-4	-	1	4	102	Taxation	9-13	1,300 00
Spencer, . . . . .	4	44	14	4	76 00	40 65	331	9-4	-	1	4	115	Taxation.	10	1,300 00
Sterling, . . . . .	1	15	5	3	89 48	37 43	76-3	8-4	-	1	2	53	Part tax.	9-16	850 00
Sturbridge, . . . . .	-	16	1	1	-	34 00	105	8-1	-	-	-	-	-	-	-
Sutton, . . . . .	1	14	4	2	36 00	36 28	135	9	-	1	1	43	Taxation.	9	525 00
Templeton, . . . . .	2	18	3	3	87 50	34 97	128-19	8-11	-	2	3	71	Taxation.	9	800 00
Upton, . . . . .	1	8	5	4	111 11	39 00	71	8-17	-	1	2	69	Taxation.	9-10	720 00
Uxbridge, . . . . .	2	20	7	4	102 94	37 88	145-10	8-15	-	1	2	85	Taxation.	9-10	1,000 00
Warren, . . . . .	5	31	12	12	57 25	41 83	216	9	-	1	3	71	Taxation.	9	1,500 00
Webster, . . . . .	3	18	5	3	132 50	40 00	129	9-3	-	1	4	80	Taxation.	10	1,000 00
Westborough, . . . . .	1	24	8	4	110 00	47 21	139	9-1	-	1	5	103	Taxation.	10	1,800 00
West Boylston, . . . . .	2	17	12	9	123 33	39 10	136	9-1	-	1	3	67	Taxation.	10	1,100 00
West Brookfield, . . . . .	-	10	3	2	-	38 48	66-16	8-7	-	1	1	17	Taxation.	9	500 00
Westminster, . . . . .	1	14	4	2	55 55	33 03	80-9	7-6	-	1	1	59	Taxation.	8-13	512 77
Winchendon, . . . . .	2	33	7	5	184 21	44 26	177-2	8-14	-	1	9	112	Not by tax.	9-10	2,200 00
Worcester, . . . . .	48	418	317	333	146 88	58 87	3,980	10	-	2	59	1,932	Taxation.	10	3,000 00
Totals, . . . . .	153	1,598	746	614	\$112 80	\$46 18	11,946-4	9-2	-	48	204	5,732	-	9-10	\$58,082 77

\* Leicester Academy.

## BOARD OF EDUCATION.

## WORCESTER COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes and expended for schools, including wages of teachers, board, fuel, care of drive and schoolrooms, for the school year 1896- 97.	Expense for trans- portation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent- ent or town's share of it.	Expense of books, sta- tionery and school supplies.	Sundries (reports, cen- sus, etc.).	Amount expended for new schoolhouses.	Amount expended for alterations and per- manent improve- ments.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by tax- ation.
Ashburham,	\$4,850 00	\$69 75	\$135 00	—	\$515 26	\$35 00	—	—	\$269 85	\$5,805 11
Athol,	16,952 45	971 60	—	\$1,740 00	1,956 30	873 73	—	\$196 49	381 28	22,100 25
Auburn,	8,322 00	—	137 00	—	281 58	10 00	—	—	175 20	3,925 78
Barre,	6,203 05	403 05	85 75	286 76	434 83	—	—	—	364 54	7,374 93
Berlin,	1,200 00	—	70 00	120 96	164 07	—	—	—	22 43	1,577 46
Blackstone,	11,183 96	—	—	888 89	709 55	40 00	—	135 00	485 02	13,442 42
Bolton,	1,500 00	300 00	60 00	160 72	165 10	16 00	—	663 34	30 85	2,596 01
Boylston,	1,650 00	54 00	64 20	133 93	93 91	—	—	—	44 30	1,986 34
Brookfield,	7,625 51	126 18	115 00	375 00	610 55	—	—	220 24	256 51	9,202 81
Charlton,	3,572 45	—	224 27	—	379 28	26 43	—	—	170 76	4,373 19
Clinton,	27,814 76	—	250 00	1,800 00	2,732 67	1,481 09	—	3,100 00	1,311 30	38,489 82
Dana,	900 00	30 00	47 50	—	195 40	5 00	—	—	119 54	1,267 44
Douglas,	5,148 03	—	25 00	100 00	480 25	37 00	—	167 02	—	5,957 30
Dudley,	5,794 89	108 00	60 00	235 00	522 39	16 50	—	135 00	198 57	6,982 35
Fitchburg,	90,322 29	726 25	500 00	2,700 00	9,096 72	4,184 27	\$3,998 97	2,118 03	600 00	113,520 28
Gardner,	24,284 04	400 00	—	2,500 00	3,618 19	1,301 34	3,000 00	—	998 48	35,702 05
Grafton,	14,775 09	2,066 35	200 00	750 00	949 94	40 00	—	—	1,251 86	17,966 89
Hardwick,	6,496 89	2,233 59	51 75	308 82	506 10	10 00	—	—	309 16	7,682 72
Harvard,	3,162 94	164 00	105 00	241 07	280 65	80 01	—	—	71 91	3,941 58
Holden,	6,751 66	210 50	60 00	375 00	569 54	—	—	—	53 80	8,941 00
Hopedale,	5,224 47	—	—	250 00	619 20	434 30	—	46 35	236 86	7,810 00
Hubbardston,	3,035 00	—	92 00	150 00	230 00	—	—	—	315 00	3,822 00
Leicester,	8,005 34	511 85	299 99	—	417 67	126 64	—	—	304 31	9,153 95
Leicester,	8,970 09	380 25	183 19	375 00	611 52	160 43	—	333 33	538 23	11,171 79
Leominster,	25,901 64	699 65	200 00	1,800 00	4,625 56	361 60	—	608 43	1,720 17	35,217 50
Lunenburg,	2,984 29	215 50	111 75	283 33	271 25	20 00	—	—	195 04	3,865 66

## SCHOOL RETURNS.

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Mendon, . . .	2,026 91	218 00	25 00	250 00	223 63	112 33	-	61 99	51 13	2,750 99
Milford, . . .	20,921 62	117 00	-	1,123 15	1,464 70	1,383 71	-	1,243 61	865 39	27,002 18
Millbury, . . .	10,419 85	31 57	150 00	382 50	974 04	279 43	-	157 93	669 88	13,033 63
New Braintree, . . .	1,612 00	94 00	67 00	-	189 00	109 00	-	50 00	26 00	2,053 00
Northborough, . . .	5,000 00	766 50	100 00	217 74	520 50	139 65	4,400 00	548 65	199 47	11,126 01
Northbridge, . . .	17,262 19	359 40	-	600 00	1,448 39	603 70	13,572 31	16,208 68	1,059 85	50,755 12
No. Brookfield, . . .	8,921 47	503 75	210 00	375 00	838 10	192 32	-	554 73	283 37	11,374 99
Oakham, . . .	1,200 00	86 10	109 00	-	240 75	5 00	-	-	50 53	1,605 28
Oxford, . . .	6,175 79	195 50	110 00	212 50	476 07	286 55	2,232 99	1,432 16	126 52	11,052 58
Paxton, . . .	706 00	286 00	55 00	-	38 38	13 30	-	120 11	1 00	933 74
Petersham, . . .	2,773 98	477 92	31 00	154 41	130 12	35 50	-	-	69 86	3,194 87
Phillipston, . . .	1,100 00	105 90	45 00	25 00	135 33	-	-	191 16	72 29	1,377 62
Princeton, . . .	2,700 00	440 00	80 00	300 00	269 75	52 01	-	-	125 00	3,717 92
Royalston, . . .	1,200 00	96 00	56 00	150 00	158 79	-	-	-	105 46	1,670 25
Rutland, . . .	2,059 64	499 00	113 00	-	240 36	3 15	-	-	118 39	2,534 54
Shrewsbury, . . .	4,475 00	223 14	150 00	169 38	886 14	-	2,500 00	-	-	8,180 52
Southborough, . . .	5,961 67	210 75	150 00	241 92	417 10	20 00	-	-	239 56	7,030 25
Southbridge, . . .	14,187 03	17 00	-	1,400 00	1,325 73	845 00	-	403 00	343 03	18,503 79
Spencer, . . .	22,068 01	293 00	-	1,300 00	1,814 58	1,297 24	-	870 00	250 00	27,599 83
Sterling, . . .	3,768 99	259 50	71 91	270 00	346 31	52 46	-	21 00	245 63	4,776 30
Starbridge, . . .	4,605 95	716 25	43 00	320 00	358 98	-	12,000 00	-	100 63	17,428 56
Sutton, . . .	5,350 00	153 00	-	-	408 85	129 04	-	287 00	300 00	6,474 89
Templeton, . . .	6,461 60	861 60	80 00	375 00	831 78	81 30	-	-	192 89	8,022 57
Upton, . . .	4,299 91	802 00	35 00	250 00	393 59	2 57	-	1,271 20	95 71	6,347 98
Uxbridge, . . .	9,492 67	276 40	25 00	300 00	791 72	176 80	2,560 00	90 85	570 69	14,007 73
Warren, . . .	14,341 72	793 04	35 00	600 00	1,261 53	576 50	-	1,114 09	831 98	18,760 82
Webster, . . .	11,092 16	65 00	150 00	800 00	796 60	764 91	-	500 00	816 32	14,919 99
Westborough, . . .	11,872 48	1,350 29	-	500 00	878 33	677 70	-	975 71	979 15	15,883 37
West Boylston, . . .	8,200 00	-	250 00	431 42	894 68	150 23	-	-	103 13	10,029 46
West Brookfield, . . .	3,337 00	495 00	-	240 00	289 69	50 00	-	70 00	125 00	4,111 69
Westminster, . . .	3,463 49	297 00	94 14	110 00	483 99	223 74	-	63 90	274 77	4,714 03
Winchendon, . . .	8,845 44	200 47	238 84	566 67	670 37	235 13	4,013 91	-	187 97	14,758 33
Worcester, . . .	359,881 78	-	1,400 00	4,000 00	37,017 61	28,501 19	108,651 41	9,461 07	31,413 02	580,326 08
Totals, . . .	\$883,415 19	\$18,950 60	\$6,951 29	\$31,259 17	\$88,253 02	\$46,258 80	\$156,929 59	\$43,420 07	\$51,318 59	\$1,307,805 72

BOARD OF EDUCATION.

WORCESTER COUNTY — CONCLUDED.

[illegible]



## SCHOOL RETURNS.

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Mendon, . .	-	-	-	182 32	-	-	-	-	-	1	320	-	362 58	35 43
Milford, . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millbury, . .	-	-	-	-	-	-	-	-	-	-	-	-	180 06	-
New Braintree, .	-	-	-	104 00	-	-	-	-	-	-	-	-	462 58	36 00
Northborough, .	-	-	125 00	-	-	-	-	-	-	-	-	-	262 57	-
Northbridge, . .	-	-	-	-	-	-	-	-	-	-	-	-	266 77	-
No. Brookfield, .	-	-	-	-	-	-	-	-	-	7	281	-	262 57	-
Oakham, . .	-	-	-	414 02	-	-	-	-	-	-	-	-	458 38	15 00
Oxford, . .	-	-	-	171 76	-	-	-	-	-	-	-	-	262 57	-
Paxton, . .	-	-	-	478 58	-	-	-	-	-	-	-	-	300 00	-
Petersham, . .	-	-	-	75 00	-	-	-	-	-	-	-	-	362 57	-
Phillipston, . .	-	-	82 30	168 30	-	-	-	-	-	-	-	-	480 06	21 25
Princeton, . .	-	-	-	-	-	-	-	-	-	-	-	-	362 57	-
Royalston, . .	-	-	311 62	211 42	-	-	-	-	-	-	-	-	308 38	-
Rutland, . .	-	-	-	120 61	-	-	-	-	-	-	-	-	362 57	-
Shrewsbury, . .	-	-	40 20	83 39	-	-	-	-	-	-	-	-	362 57	-
Southborough, .	-	-	-	-	-	115	69,000 00	-	-	1	45	-	262 57	-
Southbridge, . .	-	-	-	-	-	-	-	-	-	2	848	-	-	-
Spencer, . .	-	-	-	581 96	-	-	-	-	-	1	400	-	416 77	-
Sterling, . .	-	-	725 36	231 13	-	-	-	-	-	2	100	-	362 57	-
Sturbridge, . .	-	-	-	-	-	-	-	-	-	2	115	-	230 06	100 80
Sutton, . .	-	-	113 00	377 75	-	-	-	-	-	-	-	-	362 57	-
Templeton, . .	-	-	-	339 97	-	-	-	-	-	-	-	-	212 57	-
Upton, . .	-	-	-	-	-	-	-	-	-	-	-	-	212 57	-
Uxbridge, . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warren, . .	-	-	-	-	-	-	-	-	-	3	950	-	-	-
Webster, . .	-	-	-	516 68	-	-	-	-	-	2	23	-	180 06	-
Westborough, . .	-	-	-	-	-	-	-	-	-	-	-	-	316 76	50 30
West Boylston, . .	-	-	-	-	-	-	-	-	-	-	-	-	330 06	-
W. Brookfield, . .	-	-	-	-	-	-	-	-	-	-	-	-	362 57	20 90
Westminster, . .	35 00	-	-	-	-	-	-	-	-	1	4	-	158 38	20 00
Winchendon, . .	80 00	-	8,346 94	-	-	-	-	-	-	15	2,152	-	-	-
Worcester, . .	-	-	66 31	-	-	2	267	22,225 00	-	49	7,168	\$38,192 50	\$14,952 59	\$384 68
Totals, . .	\$2,398 00	\$585,412 01	\$23,926 86	\$7,595 41	778	7	\$102,190 50	69,000 00	49	7,168	\$38,192 50	\$14,952 59	\$384 68	

## RECAPITULATION.

COUNTIES.	Population—State Census, 1885.	Valuation — 1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 16 and 18 years of age.	No. of different pupils of all ages in the Public Schools during the school year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school year.	The per cent. of attendance based upon the average membership.
Barnstable, . . . . .	27,554	\$22,395,497	155	4,264	2,728	5,000	26	655	2,608	4,255	3,917	.92
Berkshire, . . . . .	86,292	50,465,271	439	15,965	9,717	17,443	140	1,504	9,477	13,547	12,418	.92
Bristol, . . . . .	219,019	174,079,354	743	41,944	24,943	37,415	315	2,506	20,500	29,402	27,047	.92
Dukes, . . . . .	4,238	4,103,014	24	548	357	656	2	88	354	563	511	.91
Essex, . . . . .	330,393	250,656,405	1,166	55,540	33,205	52,150	665	5,451	28,203	44,529	41,449	.93
Franklin, . . . . .	40,145	22,204,064	254	6,559	4,207	7,587	40	742	4,320	6,290	5,890	.94
Hampden, . . . . .	152,938	124,651,842	599	27,443	17,027	25,881	387	2,301	14,985	20,412	18,841	.92
Hampshire, . . . . .	54,710	30,881,794	288	9,361	5,806	10,162	161	920	5,698	8,231	7,688	.93
Middlesex, . . . . .	499,217	465,157,731	1,886	88,112	53,248	92,859	2,285	9,804	47,267	76,386	71,102	.93
Nantucket, . . . . .	3,016	2,975,659	12	450	380	350	—	60	240	300	280	.93
Norfolk, . . . . .	134,819	171,261,493	620	23,669	14,545	26,158	474	2,477	14,267	21,927	20,431	.93
Plymouth, . . . . .	101,498	73,760,771	460	16,120	9,795	18,799	116	2,201	10,423	15,726	14,502	.92
Suffolk, . . . . .	539,799	1,017,745,242	1,600	86,632	40,898	88,199	1,850	8,377	42,657	76,720	68,353	.89
Worcester, . . . . .	306,445	212,182,141	1,311	54,780	32,894	56,708	407	4,800	33,281	45,578	42,516	.93
Totals, . . . . .	2,500,183	\$2,622,520,278	9,557	431,387	249,750	439,367	6,868	41,886	234,280	363,866	334,945	.92

## SCHOOL RETURNS.

LXXV

## RECAPITULATION — CONTINUED.

COUNTIES.	No. of teachers required by the Public Schools.	Whole No. of different male teachers in school year.	Whole No. of different female teachers in school year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Average wages per month of male teachers in Public Schools.	Average wages per month of female teachers in Public Schools.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than the time required by law.	HIGH SCHOOLS.				Salary of Principal.
											No. of High Schools.	No. of teachers.	No. of pupils.		
Barnstable,	167	41	166	45	35	\$74 79	\$37 42	1,345-6	8-13	—	13	23	696	\$12,015 91	
Berkshire,	494	39	528	102	80	84 95	36 40	3,894-15	8-17	—	12	38	1,191	14,180 71	
Bristol,	916	76	954	218	165	109 33	48 75	6,843-14	9-4	1	13	62	2,086	16,911 25	
Dukes,	27	7	28	5	4	53 28	40 51	189-9	7-17	—	3	4	91	1,800 00	
Essex,	1,379	99	1,391	478	416	131 74	48 85	11,035-14	9-9	—	29	161	4,313	42,872 88	
Franklin,	286	20	378	85	69	60 17	33 40	2,091-12	8-4	—	10	31	663	9,621 27	
Hampden,	726	61	761	322	313	122 34	50 35	5,542-14	9-5	—	9	65	1,596	16,800 00	
Hampshire,	326	35	398	109	69	74 91	35 44	2,471-11	8-11	—	13	35	954	11,725 86	
Middlesex,	2,319	197	2,431	936	800	149 97	55 49	17,222-13	9-2	—	50	291	8,745	73,628 23	
Nantucket,	13	1	12	2	2	100 00	32 50	106	10	—	1	2	80	1,000 00	
Norfolk,	755	87	781	262	231	113 52	49 27	5,845-6	9-8	—	29	100	2,797	38,078 92	
Plymouth,	520	68	563	233	193	94 14	43 89	4,343-1	9-8	—	19	71	1,931	21,637 50	
Suffolk,	1,859	236	1,734	1,118	1,112	252 58	77 11	16,347-14	10-4	—	13	196	5,353	44,156 00	
Worcester,	1,514	153	1,598	746	614	112 80	46 18	11,946-4	9-2	—	48	204	5,732	58,082 77	
Totals,	11,301	1,120	11,723	4,661	4,103	\$144 80	\$52 20	89,225-13	9-6	1	262	1,283	36,228	\$362,511 30	

## RECAPITULATION — CONTINUED.

COUNTIES.	Amount raised by taxes and expended for schools, including wages of teachers, board, transporta- tion, fuel, care of fires and schoolrooms, for the school year 1886-87.	Expense for trans- portation, included also in the preceding column.	Expense of supervision by school committee, including clerical aid.	Salary of Superintendent or town's share of it.	Expense of books, stationery and school supplies.	Sundries (reports, censuses, etc.).	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.
Barnstable,	\$79,702 92	\$6,434 60	\$1,477 22	\$5,558 86	\$7,806 36	\$1,880 98	\$28,884 16	\$8,622 09	\$129,621 88
Berkshire, .	212,393 82	3,057 13	4,351 32	10,051 32	21,714 67	4,884 53	214,616 55	10,054 87	484,618 64
Bristol, .	568,295 60	6,349 15	5,786 55	14,160 00	35,936 54	16,777 77	142,454 49	24,272 22	836,807 01
Dukes, .	7,562 60	71 50	349 45	750 00	1,765 02	304 14	—	130 51	13,279 75
Essex, .	846,253 46	3,952 17	8,724 56	25,434 83	77,427 51	21,756 71	128,851 80	45,345 74	1,198,325 69
Franklin, .	95,348 19	6,242 40	2,340 28	5,465 42	10,404 20	1,707 19	4,212 16	4,026 66	126,156 17
Hampden, .	439,503 89	4,184 08	4,361 64	16,275 48	40,947 35	26,849 12	74,500 30	18,429 46	627,805 87
Hampshire,	131,282 55	5,281 97	2,322 53	7,425 59	12,275 72	3,887 88	19,846 09	7,556 43	188,610 90
Middlesex,	1,681,590 00	27,982 58	10,837 16	47,182 86	125,843 32	74,949 76	592,380 63	98,747 07	2,796,553 19
Nantucket,	5,111 75	—	100 00	—	431 87	399 92	—	381 23	6,424 77
Norfolk, .	502,946 93	11,501 97	3,965 95	23,153 30	41,818 67	22,621 10	125,929 42	20,811 52	774,215 81
Plymouth, .	288,930 18	8,850 60	3,794 34	12,275 00	24,669 32	6,621 41	110,241 58	15,127 60	468,523 86
Suffolk, .	1,994,478 40	2,858 38	62,982 51	8,753 83	88,853 02	67,451 47	609,135 01	230,324 90	3,236,970 00
Worcester, .	883,415 19	18,930 60	6,951 29	31,259 17	88,253 02	46,258 80	156,929 59	51,318 59	1,307,805 72
Totals,	\$7,786,815 48	\$105,717 13	\$118,744 80	\$207,745 66	\$578,146 59	\$296,350 78	\$2,207,981 78	\$530,148 89	\$12,195,749 26

# SCHOOL RETURNS.

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## RECAPITULATION—CONCLUDED.

COUNTIES.	Amount of voluntary contributions for Public Schools.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1897.	How much of said fund was used for apparatus and books of reference.
					No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Barnstable, .	—	\$38,516 34	\$2,092 38	\$1,319 97	1	1	—	16	1,708	—	\$4,589 34	\$551 83
Berkshire, .	\$383 52	15,343 65	784 10	2,649 99	—	—	—	—	—	\$8,155 00	10,346 59	325 01
Bristol, .	2,000 00	247,439 40	12,424 04	9,145 43	3	195	\$11,476 00	40	8,551	29,653 60	4,543 54	414 83
Dukes, .	—	—	—	254 34	—	—	—	—	—	—	2,339 47	—
Essex, .	50 00	622,941 34	33,012 12	5,478 79	5	700	36,200 00	53	8,860	28,695 00	5,581 28	259 42
Franklin, .	44 00	83,308 99	4,401 22	1,286 22	7	964	62,501 08	8	292	4,505 00	9,859 93	179 88
Hampden, .	756 00	323,116 47	13,446 50	1,559 91	3	392	14,442 00	19	6,753	41,568 00	6,872 18	201 07
Hampshire, .	835 00	480,258 42	19,679 59	2,586 17	3	217	7,359 00	13	975	7,745 00	7,746 30	20 50
Middlesex, .	983 60	175,540 22	8,144 89	9,082 89	12	1,135	114,914 00	54	13,123	117,389 00	9,516 47	182 80
Nantucket, .	—	—	—	252 60	1	60	500 00	—	—	—	—	—
Norfolk, .	1,647 00	30,514 46	1,542 96	4,991 32	5	601	30,260 75	24	1,875	26,615 00	4,501 22	190 57
Plymouth, .	255 00	167,627 00	8,070 60	5,584 51	4	168	3,840 00	10	850	8,750 00	6,169 74	188 66
Suffolk, .	—	71,589 83	1,908 00	47,280 34	3	208	10,875 00	79	13,215	257,860 57	—	—
Worcester, .	2,398 00	585,412 01	23,926 86	7,595 41	7	778	102,190 50	49	7,168	33,192 50	14,952 59	384 68
Totals, .	\$8,852 12	\$2,791,608 13	\$129,436 26	\$99,067 89	53	5,418	\$394,558 33	365	63,370	\$564,128 67	\$86,968 65	\$2,898 75

## EVENING SCHOOLS.

CITIES AND TOWNS.	No. of Schools.	ATTENDANCE.			TIME.  No. of Evenings.	No. of Teachers.	Expense.
		Males.	Females.	Average.			
Adams, . . . . .	9	203	271	277	25	11	\$510 75
Andover, . . . . .	4	20	30	-	48	12	-
Auburn, . . . . .	1	24	2	19	53	2	122 00
Beverly, . . . . .	1	105	35	25	51	2	204 00
Boston, . . . . .	218	2,618	1,493	4,111	90	218	69,842 76
Brockton, . . . . .	11	342	128	299	45	14	1,177 10
Brookline, . . . . .	4	119	32	-	69	4	675 51
Cambridge, . . . . .	31	910	411	548	50	65	7,148 10
Chelsea, . . . . .	6	276	197	136	50	12	1,128 50
Chicopee, . . . . .	16	256	250	-	46	35	1,789 37
Clinton, . . . . .	4	175	65	105	72	9	614 50
Dudley, . . . . .	2	67	32	67	35	4	211 75
Easton, . . . . .	1	27	23	17	26	1	221 61
Everett, . . . . .	3	58	41	41	64	4	396 31
Fall River, . . . . .	55	2,611	1,272	2,087	47	139	10,935 20
Fitchburg, . . . . .	6	719	*	297	48	52	3,218 75
Framingham, . . . . .	4	118	62	114	32	8	800 00
Gardner, . . . . .	7	139	10	99	42	19	812 68
Haverhill, . . . . .	12	238	98	268	60	25	2,433 10
Holyoke, . . . . .	25	365	321	448	40	55	3,172 25
Hyde Park, . . . . .	3	97	29	53	57	4	792 14
Lawrence, . . . . .	27	554	241	581	69	52	4,262 85
Lowell, . . . . .	87	2,804	1,232	2,067	69	178	23,964 62
Lynn, . . . . .	15	364	386	291	25	26	3,597 40
Malden, . . . . .	8	186	97	184	71	10	2,500 00
Marlborough, . . . . .	10	187	119	140	48	10	800 00
Maynard, . . . . .	2	38	10	34	42	2	288 34
Medford, . . . . .	1	104	89	78	60	6	1,067 85
Millbury, . . . . .	2	40	-	22	80	2	150 00
Natick, . . . . .	3	18	27	22	50	3	330 36
New Bedford, . . . . .	30	1,517	868	937	40	57	5,926 07
Newburyport, . . . . .	2	54	40	48	32	7	228 05
Newton, . . . . .	2	177	67	94	30	10	936 30
North Adams, . . . . .	14	501	185	415	40	22	1,300 00
Northampton, . . . . .	8	126	80	131	47	15	1,353 73
North Attleborough, . . . . .	1	54	3	13	35	2	132 00
Northbridge, . . . . .	2	59	-	41	30	4	214 00
Pittsfield, . . . . .	6	255	116	86	44	8	871 40
Quincy, . . . . .	9	251	71	124	49	11	2,196 45
Salem, . . . . .	4	441	132	175	228	21	2,285 00
Somerville, . . . . .	5	221	108	226	45	25	2,614 97
South Hadley, . . . . .	3	76	16	27	40	6	296 45
Southbridge, . . . . .	4	121	73	162	41	7	641 01
Spencer, . . . . .	6	70	55	60	46	11	531 40
Springfield, . . . . .	16	619	228	281	66	28	5,040 54
Taunton, . . . . .	7	276	93	215	32	20	1,673 50
Waltham, . . . . .	3	105	110	115	49	11	1,894 96
Warren, . . . . .	2	43	16	34	30	6	185 50
Webster, . . . . .	4	149	80	139	52	10	557 00
West Boylston, . . . . .	2	74	36	81	50	5	187 10
Westfield, . . . . .	4	80	20	41	42	4	356 75
Williamstown, . . . . .	-	-	-	-	-	-	73 52†
Winthrop, . . . . .	3	17	18	22	21	3	142 00
Woburn, . . . . .	1	138	37	58	42	5	617 73
Worcester, . . . . .	23	920	219	517	114	70	12,439 19
Totals, . . . . .	739	20,126	9,674	16,472	2,809	1,352	\$185,862 42

\* With males.

† For children sent to North Adams Evening School.

# SCHOOL RETURNS.

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## RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE SCHOOL YEAR 1896-97.

STATE INSTITUTIONS.	No. of Schools in the Institution.	No. of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending School.	No. over 15 years of age attending School.	No. between 5 and 15 years of age remaining in the Institution July 31, 1897.	No. of Teachers during the year.		Wages of Teachers per month.		Length of each School in Months.
							Males.	Females.	Males.	Females.	
State Industrial School at Lancaster,	5	285	138	-	119	35	-	6	-	\$25 00*	12
Lyman School for Boys at Westborough,	9	447	265	-	218	175	3	11	\$70 00 to \$100 00	\$60 00 to \$100 00	10

\* And home.

## GRADUATED TABLES—FIRST SERIES.

The following Table shows the sums appropriated by the several cities and towns in the State for the education of each child between five and fifteen years of age. The income of the surplus revenue and of other funds held in a similar way, when appropriated to schools, is added to the sum raised by taxes; and these sums constitute the amount reckoned as appropriations. The income of such school funds as were given and are held on the express condition that their income shall be appropriated to schools is not included. Such an appropriation of their income, being necessary to retaining the funds, is no evidence of the liberality of those holding the trust. But if a town appropriates the income of any fund to its public schools, which may be so appropriated or not, at the option of the voters, or when the town has a legal right to use such income in defraying its ordinary expenses, then such appropriation is as really a contribution to common schools as an equal sum raised by taxes. On this account the surplus revenue and sometimes other funds are to be distinguished from local school funds as generally held. The income of the one *may* be appropriated to schools, or not, at the pleasure of the town; the income of the other *must* be appropriated to schools by the condition of the donation. Funds of the latter kind are usually donations made to furnish means of education in addition to those provided by a reasonable taxation. Committees are expected, in their annual returns, to make this distinction in relation to school funds.

Voluntary contributions are not included in the amount which is divided in order to ascertain the sum appropriated to each child. In many towns such contributions, however liberal, are not permanent, and cannot be relied upon as a stated provision. They are often raised and applied to favor particular schools, or classes of scholars, and not to benefit equally all that attend the public schools. Besides, the value of board and fuel gratuitously furnished is determined by the mere estimate of individuals, and is therefore uncertain; while the amount raised by taxes, being in money, has a fixed and definite value, and is a matter of record. Still the contributions voluntarily made are exhibited in a separate column of the Table, as necessary to a complete statement of the provision made by the towns for the education of their children.

The Table exhibits the rank of each city or town in the State, in respect to its liberality in the appropriation of money to its schools, as compared with other cities and towns for the year 1896-97, also its rank in a similar scale for 1895-96. It presents the sum appropriated to each child between five and fifteen.



## GRADUATED TABLES — (FOR THE STATE) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in the State for the Education of each Child in the Town between the Ages of 5 and 15 Years.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	HULL,	\$58 45.8	\$7,015 00	-	\$7,015 00	120	-
2	2	Weston,	50 27.5	9,803 68	-	9,803 68	195	-
11	3	Tyngsborough,	43 53.1	3,526 06	-	3,526 06	81	-
3	4	Brookline,	40 82.6	103,250 00	-	103,250 00	2,529	-
4	5	Nahant,	37 34.1	4,406 26	-	4,406 26	118	-
6	6	Milton,	37 00.1	38,111 86	-	38,111 86	1,030	-
8	7	Sherborn,	35 41.1	3,703 00	\$121 41	3,824 41	108	-
13	8	Sudbury,	32 25.9	5,100 00	222 87	5,322 87	165	\$25 31
5	9	Cohasset,	31 49.7	11,557 49	254 10	11,811 59	375	-
24	10	Falmouth,	30 71.5	12,224 58	-	12,224 58	398	-
37	11	Littleton,	28 70.1	4,645 66	176 13	4,821 79	168	-
17	12	Newton,	28 03.7	133,723 29	2,568 42	136,291 71	4,861	-
7	13	Wellesley,	27 69.4	17,308 84	-	17,308 84	625	-
10	14	Lexington,	27 68.8	15,034 93	-	15,034 93	543	-
53	15	Petersham,	27 49.7	2,773 98	168 30	2,942 28	107	-
16	16	Concord,	26 67.3	18,218 00	-	18,218 00	683	-
135	17	Dunstable,	26 60.9	1,330 45	-	1,330 45	50	-
20	18	Dedham,	26 40.2	33,267 56	-	33,267 56	1,260	-

## Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
27	19	Belmont,	\$25 66.2	\$11,240 29	-	\$11,240 29	438	\$374 00
19	20	Lincoln,	25 42.2	4,042 13	-	4,042 13	159	-
22	21	Medford,	24 86.1	62,750 25	-	62,750 25	2,524	-
26	22	Boston,	24 43.6	1,878,157 33	\$41,632 89	1,919,790 22	78,561	-
23	23	Hingham,	24 42.6	15,379 57	571 20	15,950 77	653	-
28	24	Winchester,	24 26.2	25,500 38	-	25,500 38	1,051	-
18	25	Sterling,	24 24.3	3,768 99	231 13	4,000 12	165	-
29	26	Dover,	23 96.4	2,132 83	-	2,132 83	89	-
25	27	Arlington,	23 65.9	26,853 00	-	26,853 00	1,135	122 25
9	28	Princeton,	23 47.9	2,700 00	211 42	2,911 42	124	-
31	29	Manchester,	23 30.1	6,687 67	-	6,687 67	287	-
39	30	Bridgewater,	23 13.5	11,957 84	396 49	12,354 33	534	-
32	31	Barnstable,	22 79.8	13,850 00	467 16	14,317 16	628	-
103	32	North Reading,	22 68.1	2,993 91	-	2,993 91	132	-
14	33	Lancaster,	22 67.8	8,005 34	-	8,005 34	353	-
42	34	Springfield,	22 29.0	185,165 33	-	185,165 33	8,307	-
33	35	Mattapoisett,	22 26.8	3,117 65	-	3,117 65	140	-
64	36	Groton,	22 15.8	7,100 00	-	8,132 00	367	-
119	37	Yarmouth,	22 01.4	4,750 00	1,032 00	4,909 15	223	-
87	38	Shelburne,	21 85.0	4,150 45	159 15	4,260 90	195	-
149	39	Wayland,	21 84.4	7,997 40	110 45	8,151 01	373	-
46	40	Watertown,	21 82.3	26,689 92	153 61	26,689 92	1,223	250 00
12	41	Longmeadow,	21 68.6	2,000 00	-	2,000 00	83	-
88	42	Holliston,	21 68.2	8,629 54	-	8,629 54	398	-
50	43	Hopedale,	21 58.8	5,224 47	-	5,224 47	242	-
47	44	Abington,	21 55.7	14,228 20	-	14,228 20	660	-

### SCHOOL RETURNS.

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[illegible]

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
83	77	Wrentham, . . . . .	\$19 39.4	\$8,650 00	\$446 19	\$9,096 19	469	-
56	78	Bradford, . . . . .	19 26.4	15,566 09	-	15,566 09	808	-
127	79	Marblehead, . . . . .	19 21.7	19,280 75	301 57	19,582 32	1,019	-
48	80	Braintree, . . . . .	19 14.6	15,538 63	717 14	16,255 77	849	\$125 00
128	81	Medfield, . . . . .	19 00.8	4,371 90	-	4,371 90	230	-
68	82	Bedford, . . . . .	18 99.5	3,590 24	-	3,590 24	189	87 04
139	83	Pepperell, . . . . .	18 97.7	11,140 00	-	11,140 00	587	-
79	84	Frammingham, . . . . .	18 91.1	34,634 24	1,297 43	35,931 67	1,900	-
105	85	East Bridgewater, . . . . .	18 86.2	7,764 20	365 42	8,129 62	431	-
51	86	Kingston, . . . . .	18 85.5	5,194 64	198 05	5,392 69	286	-
224	87	Blandford, . . . . .	18 76.7	2,050 00	127 00	2,177 00	116	-
216	88	Westford, . . . . .	18 58.6	7,100 00	-	7,100 00	382	-
99	89	Barre, . . . . .	18 57.2	6,203 05	-	6,203 05	334	-
86	90	Holbrook, . . . . .	18 53.3	7,746 93	-	7,746 93	418	-
252	91	Cottage City, . . . . .	18 48.9	2,400 00	96 04	2,496 04	135	-
112	92	Reading, . . . . .	18 47.8	14,672 08	-	14,672 03	794	-
98	93	Great Barrington, . . . . .	12 184 35	27,881 30	835 25	13,019 60	706	-
81	94	Natick, . . . . .	18 42.7	27,881 30	-	27,881 30	1,513	-
82	95	Canton, . . . . .	18 39.6	13,800 00	494 11	14,294 11	777	1,400 00
74	96	Stockbridge, . . . . .	18 37.6	7,387 25	-	7,387 25	402	-
107	97	Dennis, . . . . .	18 32.0	6,500 00	132 06	6,632 06	362	-
76	98	North Attleborough, . . . . .	18 27.7	21,399 84	880 28	22,280 12	1,219	-
167	99	Georgetown, . . . . .	18 15.0	5,675 00	169 57	5,844 57	322	-
66	100	Needham, . . . . .	18 12.2	11,181 57	-	11,181 57	617	-
93	101	Shrewsbury, . . . . .	18 11.7	4,475 00	-	4,475 00	247	-
70	102	North Andover, . . . . .	18 10.6	12,927 80	-	12,927 80	714	-

## SCHOOL RETURNS.

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85	103	Stoneham, . . . . .	18 09.6	17,300 00	-	17,300 00	956
97	104	Lynn, . . . . .	18 03.8	186,406 72	-	186,406 72	10,334
111	105	Norwood, . . . . .	18 03.8	15,169 98	-	15,169 98	841
94	106	Westfield, . . . . .	17 96.7	32,845 25	-	32,845 25	1,828
125	107	Millis, . . . . .	17 79.6	2,776 25	-	2,776 25	156
124	108	Rockland, . . . . .	17 72.4	16,481 11	-	16,481 11	930
61	109	Swampscott, . . . . .	17 68.5	11,424 57	-	11,424 57	646
138	110	Middleborough, . . . . .	17 65.1	17,351 65	-	17,351 65	983
108	111	Uxbridge, . . . . .	17 64.4	9,492 67	-	9,492 67	538
100	112	Fitchburg, . . . . .	17 61.6	90,322 29	-	90,322 29	5,127
100	113	Randolph, . . . . .	17 60.2	9,849 69	447 88	10,297 57	585
80	114	Greenfield, . . . . .	17 56.4	20,357 64	-	20,357 64	1,159
199	115	West Boylston, . . . . .	17 52.1	8,200 00	-	8,200 00	468
77	116	Westborough, . . . . .	17 45.9	11,872 48	-	11,872 48	680
242	117	Dracut, . . . . .	17 41.5	7,976 47	-	7,976 47	458
126	118	Brockton, . . . . .	17 41.4	100,746 90	1,407 65	102,154 55	5,866
249	119	Medway, . . . . .	17 27.8	8,000 00	-	8,000 00	463
120	120	Swansea, . . . . .	17 20.8	3,799 90	313 05	4,112 95	239
130	121	Wakefield, . . . . .	17 10.9	25,680 80	-	25,680 80	1,501
115	122	Taunton, . . . . .	17 07.9	81,631 98	1,322 50	82,954 48	4,857
104	123	Everett, . . . . .	17 04.3	62,005 09	-	62,005 09	3,638
213	124	Monson, . . . . .	17 01.5	9,679 17	427 73	10,106 90	594
141	125	Foxborough, . . . . .	16 98.4	7,912 00	885 95	8,797 95	518
141	126	Hudson, . . . . .	16 96.0	14,760 00	283 57	15,043 57	887
178	127	Norfolk, . . . . .	16 94.8	2,559 20	-	2,559 20	151
181	128	Leicester, . . . . .	16 93.9	8,970 09	481 89	9,451 98	558
84	129	Andover, . . . . .	16 91.7	17,171 50	-	17,171 50	1,015
96	130	Sharon, . . . . .	16 90.5	3,600 00	153 00	3,753 00	222
259	131	Hubbardston, . . . . .	16 86.1	3,035 00	-	3,035 00	180
152	132	Palmer, . . . . .	16 85.9	16,999 73	450 27	17,450 00	1,035
151	133	Danvers, . . . . .	16 79.9	21,302 00	-	21,302 00	1,268
90	134	Norwell, . . . . .	16 74.3	3,650 00	251 12	3,901 12	233
							5 00

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

	For 1895-96.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
137	135	Haverhill, . . . . .	\$16 71.6	\$83,334 17	—	\$83,334 17	4,985	—
153	136	Lunenburg, . . . . .	16 67.2	2,984 29	—	2,984 29	179	\$50 00
45	137	Leominster, . . . . .	16 65.7	25,901 64	—	25,901 64	1,555	—
35	138	Southborough, . . . . .	16 65.2	5,961 67	—	5,961 67	358	—
193	139	Oxford, . . . . .	16 55.0	6,175 79	\$478 58	6,654 37	402	14 00
171	140	Mansfield, . . . . .	16 52.7	10,543 42	529 92	11,073 34	670	—
165	141	Mendon, . . . . .	16 48.6	2,026 91	182 32	2,209 23	134	—
140	142	Orange, . . . . .	16 44.5	15,162 44	—	15,162 44	922	—
60	143	Tisbury, . . . . .	16 37.7	2,221 50	44 56	2,266 06	138	—
143	144	Ashby, . . . . .	16 37.0	1,800 00	197 22	1,997 22	122	—
164	145	Brewster, . . . . .	16 25.6	2,509 71	58 86	2,568 57	158	—
118	146	Chatham, . . . . .	16 19.1	4,221 32	117 87	4,339 19	268	—
157	147	Athol, . . . . .	16 14.5	16,952 45	—	16,952 45	1,050	—
133	148	Hyde Park, . . . . .	16 13.1	35,827 53	—	35,827 53	2,221	—
182	149	Deerfield, . . . . .	16 08.5	6,000 00	—	6,000 00	373	—
215	150	Blackstone, . . . . .	16 02.2	11,183 96	—	11,183 96	698	—
147	151	Easthampton, . . . . .	15 88.8	13,611 78	306 23	13,918 01	876	—
172	152	Grafton, . . . . .	15 87.0	14,775 09	—	14,775 09	931	—
121	153	West Stockbridge, . . . . .	15 86.9	3,650 00	—	3,650 00	230	—
286	154	Halifax, . . . . .	15 78.9	1,200 00	—	1,200 00	76	—
169	155	Maynard, . . . . .	15 74.3	8,611 49	—	8,611 49	547	—
156	156	Quincy, . . . . .	15 73.7	73,998 47	—	73,998 47	4,702	—
270	157	Williamstown, . . . . .	15 73.5	10,668 33	—	10,668 33	678	—
168	158	Cheshire, . . . . .	15 73.0	2,800 00	—	2,800 00	178	—
113	159	Warren, . . . . .	15 72.5	14,341 72	—	14,341 72	912	—
162	160	Boxford, . . . . .	15 68.6	1,600 00	—	1,600 00	1,02	—

## SCHOOL RETURNS.

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174	Asland, . . . . .	15 66.9	5,500 00	-	5,500 00	351
219	Townsend, . . . . .	15 62.4	5,000 00	-	5,000 00	320
177	Conway, . . . . .	15 60.9	3,200 00	-	3,200 00	205
161	Northampton, . . . . .	15 57.0	41,790 43	1,011 68	42,802 11	2,749
197	Wareham, . . . . .	15 56.6	7,923 32	-	7,923 32	509
241	Duxbury, . . . . .	15 56.4	4,000 00	264 60	4,264 60	274
210	Billerica, . . . . .	15 53.6	6,810 95	289 11	7,100 06	457
136	Holden, . . . . .	15 52.0	6,751 66	403 86	7,155 02	461
132	Freetown, . . . . .	15 50.1	2,500 00	259 29	2,759 29	178
106	Northborough, . . . . .	15 47.9	5,000 00	-	5,000 00	323
123	Essex, . . . . .	15 41.8	3,500 00	-	3,500 00	227
172	Peabody, . . . . .	15 39.3	28,517 03	700 11	29,217 14	1,898
173	Granby, . . . . .	15 38.4	1,800 00	-	1,800 00	117
233	Avon, . . . . .	15 36.8	3,995 91	-	3,995 91	260
186	Chelmsford, . . . . .	15 32.9	7,216 67	463 41	7,680 08	501
65	Hampden, . . . . .	15 29.4	1,300 00	-	1,300 00	85
117	Salem, . . . . .	15 25.0	89,847 36	2,435 77	92,283 13	6,051
192	Saugus, . . . . .	15 25.0	13,054 17	-	13,054 17	856
183	Wilmington, . . . . .	15 23.2	3,500 00	125 40	3,625 40	238
145	Gloucester, . . . . .	15 21.5	62,170 74	-	62,170 74	4,086
158	Montague, . . . . .	15 17.8	16,985 24	-	16,985 24	1,119
89	South Hadley, . . . . .	15 17.5	11,730 41	-	11,730 41	773
189	Beverly, . . . . .	15 15.4	29,732 89	394 50	30,127 39	1,988
217	Prescott, . . . . .	15 13.4	700 00	56 71	756 71	50
201	Aeushnet, . . . . .	15 12.9	1,932 73	215 61	2,148 34	142
206	West Tisbury, . . . . .	15 10.4	725 00	-	725 00	48
159	Boxborough, . . . . .	15 09.4	800 00	-	800 00	53
191	Attleborough, . . . . .	15 08.6	23,358 00	886 32	24,244 32	1,607
109	Bolton, . . . . .	15 07.8	1,500 00	143 61	1,643 61	109
253	Hardwick, . . . . .	15 07.7	6,496 89	1,162 43	7,659 32	508
102	Phillipston, . . . . .	15 06.8	1,100 00	-	1,100 00	73
278	Ware, . . . . .	15 05.5	20,294 55	-	20,294 55	1,348
						50 00

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
146	193	Northbridge,	\$14 98.4	\$17,262 19	-	\$17,262 19	1,152	-
304	194	Bellingham,	14 86.2	3,736 85	\$365 19	4,102 04	276	-
260	195	Gardner,	14 85.2	24,284 04	-	24,284 04	1,635	-
175	196	Tewksbury,	14 77.6	6,442 74	-	6,442 74	436	-
214	197	Pittsfield,	14 72.5	56,854 30	-	56,854 30	3,861	-
122	198	Chilmark,	14 70.8	350 00	17 70	367 70	25	-
155	199	Enfield,	14 70.5	2,500 00	-	2,500 00	170	-
170	200	Lenox,	14 70.2	8,145 00	-	8,145 00	554	-
202	201	Lynnfield,	14 70.1	1,969 97	-	1,969 97	134	-
110	202	Lowell,	14 69.7	240,892 50	-	240,892 50	16,390	-
150	203	Harwich,	14 66.2	5,000 00	-	5,000 00	341	-
187	204	Ayer,	14 61.8	5,200 00	223 44	5,423 44	371	-
163	205	Chelsea,	14 60.3	77,042 07	5,232 50	82,274 57	5,634	-
154	206	Westminster,	14 55.2	3,463 49	-	3,463 49	238	\$35 00
166	207	Fairhaven,	14 48.2	7,176 32	-	7,176 62	526	2,000 00
212	208	West Newbury,	14 44.9	3,598 91	-	3,598 91	249	-
185	209	Dighton,	14 43.6	4,100 00	-	4,100 00	284	-
184	210	West Bridgewater,	14 43.3	3,767 17	-	3,767 17	261	-
190	211	Northfield,	14 42.9	3,000 00	203 26	3,203 26	222	19 00
144	212	Milford,	14 33.9	20,921 62	-	20,921 62	1,459	-
198	213	Marion,	14 23.5	2,000 00	135 34	2,135 34	150	-
142	214	Revere,	14 21.5	24,579 00	-	24,579 00	1,729	-
204	215	Woburn,	14 21.0	44,551 41	-	44,551 41	3,135	-
234	216	Raynham,	14 15.8	2,961 81	266 33	3,228 14	228	-
251	217	Franklin,	14 11.4	11,263 16	-	11,263 16	798	22 00
176	218	Plympton,	14 02.1	800 00	83 38	883 38	63	-



### SCHOOL RETURNS.

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223	New Bedford,	.	.	.	13 98.2	139,271 83	1,322 78	140,594 61	10,055
2238	Spencer,	.	.	.	13 92.9	22,068 01	581 96	22,649 97	1,626
194	Groveland,	.	.	.	13 91.9	5,339 80	-	5,339 80	398
209	West Brookfield,	.	.	.	13 90.4	3,337 00	-	3,337 00	240
2205	Brookfield,	.	.	.	13 89.3	7,625 51	391 01	8,016 52	577
224	Brimfield,	.	.	.	13 88.4	1,874 43	-	1,874 43	135
179	Methuen,	.	.	.	13 79.0	15,340 33	574 00	15,914 33	1,154
225	Sturbridge,	.	.	.	13 69.3	4,605 95	-	4,605 95	336
261	Newbury,	.	.	.	13 65.2	2,979 81	214 82	3,194 63	234
160	Barnardston,	.	.	.	13 63.0	1,688 09	124 72	1,812 81	133
266	Stow,	.	.	.	13 52.0	1,550 00	126 54	1,676 54	124
229	Carlisle,	.	.	.	13 51.3	1,000 00	-	1,000 00	74
245	Provincetown,	.	.	.	13 46.1	10,500 00	-	10,500 00	780
225	Charlton,	.	.	.	13 38.6	3,572 45	323 13	3,895 58	291
196	Boylston,	.	.	.	13 30.6	1,650 00	-	1,650 00	124
287	Gill,	.	.	.	13 25.0	1,828 50	-	1,828 50	138
323	Paxton,	.	.	.	13 23.7	706 00	75 00	781 00	59
232	Eastham,	.	.	.	13 23.5	900 00	-	900 00	68
220	Dartmouth,	.	.	.	13 22.4	6,400 00	490 02	6,890 02	521
313	Williamsburg,	.	.	.	13 20.9	3,995 16	152 60	4,147 76	314
131	Leyden,	.	.	.	13 20.7	700 00	-	700 00	53
211	Seituate,	.	.	.	13 11.1	5,500 00	216 68	5,716 68	436
208	Norton,	.	.	.	13 03.7	2,750 00	378 91	3,128 91	240
231	Somerset,	.	.	.	12 99.2	4,164 32	305 21	4,469 53	344
173	Ashburnham,	.	.	.	12 96.7	4,850 00	-	4,850 00	374
254	Clinton,	.	.	.	12 94.3	27,814 76	-	27,814 76	2,149
339	Cummington,	.	.	.	12 91.8	1,393 95	104 65	1,498 60	116
246	Stoughton,	.	.	.	12 88.1	10,755 64	-	10,755 64	835
148	Carver,	.	.	.	12 85.7	1,711 15	140 32	1,851 47	144
247	Lawrence,	.	.	.	12 82.6	123,586 10	-	123,586 10	9,635
248	Adams,	.	.	.	12 80.9	24,248 80	-	24,248 80	1,893
247	Wilbraham,	.	.	.	12 76.1	3,318 00	-	3,318 00	260
228		.	.	.					
223		.	.	.					
2238		.	.	.					
194		.	.	.					
209		.	.	.					
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179		.	.	.					
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287		.	.	.					
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231		.	.	.					
173		.	.	.					
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339		.	.	.					
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148		.	.	.					
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247		.	.	.					
228		.	.	.					

BOARD OF EDUCATION.

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
237	251	Sheffield,	\$12 73.3	\$3,450 00	\$171 91	\$3,921 91	308	\$69 74
289	252	Hatfield,	12 69.2	2,750 00	143 84	2,893 84	228	-
188	253	Marlborough,	12 68.6	39,835 81	-	39,835 81	3,140	-
248	254	Rutland,	12 60.6	2,059 64	83 39	2,143 03	170	-
250	255	Rehoboth,	12 59.8	3,500 00	405 46	3,905 46	310	-
317	256	Monroe,	12 53.4	513 90	-	513 90	41	-
271	257	Pembroke,	12 46.4	2,280 75	112 34	2,393 09	192	-
235	258	Montgomery,	12 32.0	600 00	40 68	640 68	52	-
207	259	Holyoke,	12 30.5	108,226 47	-	108,226 47	8,795	-
262	260	North Adams,	12 20.6	42,733 29	698 44	43,431 73	3,558	-
279	261	Rowley,	12 17.8	2,301 68	-	2,301 68	189	-
273	262	Ludlow,	12 11.3	5,380 52	119 07	5,499 59	454	746 00
243	263	Fall River,	12 09.9	227,475 08	-	227,475 08	18,801	-
265	264	Whately,	12 03.7	1,300 00	-	1,300 00	108	-
180	265	Hamilton,	12 00.0	2,508 10	-	2,508 10	209	-
303	266	Oakham,	11 92.8	1,200 00	171 76	1,371 76	115	-
244	267	Nantucket,	11 92.0	5,111 75	252 60	5,364 35	450	-
320	268	Hinsdale,	11 90.4	3,500 00	-	3,500 00	294	-
274	269	East Longmeadow,	11 90.1	3,713 32	130 86	3,844 18	323	-
280	270	Middleton,	11 87.9	1,600 00	110 68	1,710 68	144	-
276	271	Ipswich,	11 86.1	10,295 55	-	10,295 55	863	-
227	272	Middlefield,	11 85.2	800 00	6 00	806 00	68	-
283	273	Berkley,	11 84.5	1,600 00	129 37	1,729 37	146	-
230	274	Douglas,	11 75.3	5,148 03	-	5,148 03	438	-
258	275	Hanson,	11 75.2	2,250 00	171 00	2,421 00	206	-
315	276	Monterey,	11 69.3	700 00	141 90	841 90	72	-

### SCHOOL RETURNS.

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322	277	Auburn,	.	.	.	11 67.1	3,322 00	296 20	3,618 20	310
278	278	Tyringham,	.	.	.	11 63.2	600 00	28 18	628 18	54
295	279	Agawan,	.	.	.	11 58.1	5,663 35	-	5,663 35	489
195	280	Lee,	.	.	.	11 55.5	8,921 15	-	8,921 15	772
239	281	Templeton,	.	.	.	11 53.8	6,461 60	-	6,461 60	560
246	282	Florida,	.	.	.	11 50.2	1,035 26	-	1,035 26	90
345	283	Rowe,	.	.	.	11 49.1	807 00	54 89	861 89	75
263	284	Otis,	.	.	.	11 44.8	700 00	44 14	744 14	65
282	285	New Salem,	.	.	.	11 43.7	1,500 00	89 85	1,589 85	139
285	286	Milbury,	.	.	.	11 41.2	10,419 85	-	10,419 85	913
240	287	Edgartown,	.	.	.	11 36.7	1,700 00	96 04	1,796 04	158
200	288	Lakeville,	.	.	.	11 36.3	1,500 00	-	1,500 00	132
316	289	Russell,	.	.	.	11 32.0	1,800 00	-	1,800 00	159
349	290	Windsor,	.	.	.	11 31.8	750 00	42 32	792 32	70
292	291	Hadley,	.	.	.	11 30.1	3,300 00	-	3,300 00	292
255	292	Chesterfield,	.	.	.	11 25.5	900 00	56 71	956 71	85
277	293	Truro,	.	.	.	11 11.0	1,700 00	66 54	1,766 54	159
312	294	Charlmont,	.	.	.	11 11.0	1,500 00	77 68	1,577 68	142
350	295	Wales,	.	.	.	11 06.8	1,322 49	82 47	1,604 96	145
284	296	Westport,	.	.	.	10 98.9	5,000 00	-	5,000 00	455
294	297	Buckland,	.	.	.	10 94.4	2,793 05	118 25	2,911 30	266
301	298	Newburyport,	.	.	.	10 94.3	25,203 26	-	25,203 26	2,303
226	299	Dudley,	.	.	.	10 81.2	5,794 89	260 11	6,055 00	560
272	300	Winchendon,	.	.	.	10 76.0	8,815 44	-	8,845 44	822
306	301	Richmond,	.	.	.	10 70.3	1,500 00	30 61	1,530 61	143
266	302	Granville,	.	.	.	10 69.1	2,202 40	-	2,202 40	206
309	303	Erving,	.	.	.	10 68.5	2,100 00	58 52	2,158 52	202
325	304	Pelham,	.	.	.	10 60.8	862 25	103 11	965 36	91
334	305	Royalston,	.	.	.	10 56.4	1,200 00	120 61	1,320 61	125
347	306	New Ashford,	.	.	.	10 52.6	200 00	-	200 00	19
305	307	Salisbury,	.	.	.	10 49.3	2,372 00	125 40	2,497 40	238
333	308	Chester,	.	.	.	10 46.9	2,669 67	-	2,669 67	255

## BOARD OF EDUCATION.

*Showing the Comparative Amount of Money appropriated by the different Towns in the State — Concluded.*

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
310	309	Dana, . . . . .	\$10 46.5	\$900 00	-	\$900 00	86	-
281	310	Warwick, . . . . .	10 40.1	1,029 77	-	1,029 77	99	-
296	311	Amesbury, . . . . .	10 31.6	16,940 41	-	16,940 41	1,642	-
299	312	Belchertown, . . . . .	10 30.9	5,000 00	-	5,000 00	485	-
269	313	Shutesbury, . . . . .	10 28.3	600 00	\$78 71	678 71	66	-
291	314	Holland, . . . . .	10 23.8	225 00	20 74	245 74	24	-
267	315	Westhampton, . . . . .	10 22.7	900 00	-	900 00	88	-
229	316	Shirley, . . . . .	10 19.5	2,395 00	133 52	2,528 52	248	\$125 00
288	317	Rockport, . . . . .	10 15.5	7,799 23	-	7,799 23	768	-
290	318	Worthington, . . . . .	10 11.6	1,045 60	198 69	1,244 29	123	-
268	319	Colrain, . . . . .	10 10.2	2,757 97	121 21	2,879 18	285	-
307	320	Chicopee, . . . . .	10 08.5	26,886 99	-	26,886 99	2,666	-
293	321	North Brookfield, . . . . .	10 00.5	8,921 47	414 02	9,335 49	933	-
308	322	Lanesborough, . . . . .	10 00.0	1,800 00	-	1,800 00	180	-
336	323	Greenwich, . . . . .	10 00.0	750 00	-	750 00	75	-
297	324	Wenham, . . . . .	9 90.0	1,400 00	174 14	1,574 14	159	-
236	325	Hawley, . . . . .	9 67.7	774 20	-	774 20	80	-
302	326	Heath, . . . . .	9 45.5	900 00	45 52	945 52	100	-
340	327	Southwick, . . . . .	9 23.4	1,639 60	161 09	1,800 69	195	-
338	328	Huntington, . . . . .	9 13.1	2,575 00	-	2,575 00	282	-
298	329	Alford, . . . . .	9 09.0	300 00	-	300 00	33	-
326	330	Tolland, . . . . .	8 77.1	500 00	-	500 00	37	10 00
335	331	Sandisfield, . . . . .	8 69.9	1,100 00	91 89	1,191 89	137	-
329	332	New Marlborough, . . . . .	8 68.9	1,757 75	101 90	1,859 65	214	-
337	333	Southbridge, . . . . .	8 59.2	14,187 03	-	14,187 03	1,651	-
330	334	Sutton, . . . . .	8 27.7	5,950 00	377 75	5,727 75	692	-

## SCHOOL RETURNS.

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331	Seekonk,	.	.	.	8 26.7	2,000 00	323 13	2,323 13	281	-
343	Webster,	.	.	.	8 16.9	11,092 16	516 68	11,608 84	1,421	-
324	Becket,	.	.	.	8 05.5	1,300 00	85 52	1,385 52	172	-
332	Savoy, .	.	.	.	8 04.5	700 00	-	700 00	87	-
318	Berlin, .	.	.	.	7 78.5	1,200 00	76 78	1,276 78	164	-
264	Rochester,	.	.	.	7 63.4	982 00	224 18	1,206 18	158	-
314	Peru, .	.	.	.	7 52.8	500 00	26 98	526 98	70	90 00
341	Hancock,	.	.	.	7 14.2	700 00	-	700 00	98	-
343	Wendell,	.	.	.	7 07.8	683 16	53 01	736 17	104	25 00
328	Washington,	.	.	.	7 05.5	450 00	50 95	500 95	71	-
346	Southampton,	.	.	.	7 02.2	1,550 00	37 13	1,587 13	226	100 00
348	Leverett,	.	.	.	6 98.0	847 07	74 41	921 48	132	-
342	Egremont,	.	.	.	6 94.1	832 97	-	832 97	120	-
344	Plainfield,	.	.	.	6 44.6	500 00	47 95	547 95	85	-
351	Goshen,	.	.	.	6 14.0	350 00	-	350 00	57	-
319	Gosnold,	.	.	.	5 84.1	70 10	-	70 10	12	-
321	Clarksburg,	.	.	.	5 69.7	1,350 37	-	1,350 37	237	-
352	Mount Washington,	.	.	.	3 00.0	75 00	-	75 00	25	-
353	Gay Head,	.	.	.	3 00.0	96 00	-	96 00	32	-

## GRADUATED TABLES — (COUNTY TABLES) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in each of the Counties in the State for the Education of each Child in the Town between the Ages of 5 and 15 Years.

## BARNSTABLE COUNTY.

For 1895-96.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	FALMOUTH,	\$30 71.5	\$12,224 58	—	\$12,224 58	398	—
2	Barnstable,	22 79.8	13,850 00	\$467 16	14,317 16	628	—
3	Yarmouth,	22 01.4	4,750 00	159 15	4,909 15	223	—
4	Wellfleet,	21 53.6	3,157 35	73 19	3,230 54	150	—
5	Bourne,	20 38.7	5,443 59	—	5,443 59	267	—
6	Orleans,	20 25.3	3,301 26	—	3,301 26	163	—
15	Mashpee,	19 94.9	1,066 00	51 18	1,117 18	56	—
4	Sandwich,	19 64.2	4,579 11	193 96	4,773 07	243	—
7	Dennis,	18 32.0	6,500 00	132 06	6,632 06	362	—
11	Brewster,	16 25.6	2,509 71	58 86	2,568 57	158	—
8	Chatham,	16 19.1	4,221 32	117 87	4,339 19	268	—
10	Harwich,	14 66.2	5,000 00	—	5,000 00	341	—
13	Provincetown,	13 46.1	10,500 00	—	10,500 00	780	—
12	Eastham,	13 23.5	900 00	—	900 00	68	—
14	Truro,	11 11.0	1,700 00	66 54	1,766 54	159	—

## BERKSHIRE COUNTY.

1	DALTON,	\$20 03.4	\$11,500 00	—	\$11,500 00	574	—
3	Great Barrington,	18 44.1	12,184 35	\$835 25	13,019 60	706	—

## SCHOOL RETURNS.

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2	3	Stockbridge,	18 37.6	7,387 25	-	7,387 25	402
4	4	West Stockbridge,	15 86.9	3,650 00	-	3,650 00	230
15	5	Williamstown,	15 73.5	10,668 33	-	10,668 33	678
5	6	Cheshire,	15 73.0	2,800 00	-	2,800 00	178
8	7	Pittsfield,	14 72.5	56,854 30	-	56,854 30	3,861
6	8	Lenox,	14 70.2	8,145 00	-	8,145 00	554
12	9	Adams,	12 80.9	24,248 80	-	24,248 80	1,893
10	10	Sheffield,	12 73.3	3,450 00	471 91	3,921 91	308
13	11	North Adams,	12 20.6	42,733 29	698 44	43,431 73	3,558
21	12	Hinsdale,	11 90.4	3,500 00	-	3,500 00	294
20	13	Monterey,	11 69.3	700 00	141 90	841 90	72
9	14	Tyringham,	11 63.2	600 00	28 18	628 18	54
7	15	Lee,	11 55.5	8,921 15	-	8,921 15	772
11	16	Florida,	11 50.2	1,035 26	-	1,035 26	90
14	17	Otis,	11 44.8	700 00	44 14	744 14	65
31	18	Windsor,	11 31.8	750 00	42 32	792 32	70
17	19	Richmond,	10 70.3	1,500 00	30 61	1,530 61	143
30	20	New Ashford,	10 52.6	200 00	-	200 00	19
18	21	Lanesborough,	10 00.0	1,800 00	-	1,800 00	180
16	22	Alford,	9 09.0	300 00	-	300 00	33
27	23	Sandisfield,	8 69.9	1,100 00	91 89	1,191 89	137
25	24	New Marlborough,	8 63.9	1,757 75	101 90	1,859 65	214
23	25	Becket,	8 05.5	1,300 00	85 52	1,385 52	172
26	26	Savoy,	8 04.5	700 00	-	700 00	87
19	27	Peru,	7 52.8	500 00	26 98	526 98	70
28	28	Hancock,	7 14.2	700 00	-	700 00	98
24	29	Washington,	7 05.5	450 00	50 95	500 95	71
29	30	Egremont,	6 94.1	832 97	-	832 97	120
22	31	Clarksburg,	5 69.7	1,350 37	-	1,350 37	237
32	32	Mt. Washington,	3 00.0	75 00	-	75 00	25

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## BRISTOL COUNTY.

For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
For 1896-97.	EASTON, . . . . .	\$20 69.7	\$16,730 37	\$675 95	\$17,406 32	841	-
1	North Attleborough, . . . . .	18 27.7	21,399 84	880 28	22,280 12	1,219	-
2	Swansea, . . . . .	17 20.8	3,799 90	313 05	4,112 95	239	-
3	Taunton, . . . . .	17 07.9	81,631 98	1,322 50	82,954 48	4,857	-
4	Mansfield, . . . . .	16 52.7	10,543 42	529 92	11,073 34	670	-
5	Freetown, . . . . .	15 50.1	2,500 00	259 29	2,759 29	178	-
6	Acushnet, . . . . .	15 12.9	1,932 73	215 61	2,148 34	142	-
7	Attleborough, . . . . .	15 08.6	23,358 00	886 32	24,244 32	1,607	-
8	Fairhaven, . . . . .	14 48.2	7,176 32	441 30	7,617 62	526	\$2,000 00
9	Dighton, . . . . .	14 43.6	4,100 00	-	4,100 00	284	-
10	Raynham, . . . . .	14 15.8	2,961 81	266 33	3,228 14	228	-
11	New Bedford, . . . . .	13 98.2	139,271 83	1,322 78	140,594 61	10,055	-
12	Dartmouth, . . . . .	13 22.4	6,400 00	490 02	6,890 02	521	-
13	Norton, . . . . .	13 03.7	2,750 00	378 91	3,128 91	240	-
14	Somerset, . . . . .	12 99.2	4,164 32	305 21	4,469 53	344	-
15	Rehoboth, . . . . .	12 59.8	3,500 00	405 46	3,905 46	310	-
16	Fall River, . . . . .	12 09.9	227,475 08	-	227,475 08	18,801	-
17	Berkley, . . . . .	11 84.5	1,600 00	129 37	1,729 37	146	-
18	Westport, . . . . .	10 98.9	5,000 00	-	5,000 00	455	-
19	Seekonk, . . . . .	8 26.7	2,000 00	323 13	2,323 13	281	-
20							

## DUKES COUNTY.

For 1896-97.	COTTAGE CITY, . . . . .	\$18 48.9	\$2,400 00	\$96 04	\$2,496 04	135	-
1	Tisbury, . . . . .	16 37.7	2,221 50	44 56	2,266 06	138	-
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### SCHOOL RETURNS.

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## ESSEX COUNTY — CONCLUDED.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
27	25	Newbury, . . . . .	\$13 65.2	\$2,979 81	\$214 82	\$3,194 63	234	-
26	26	Lawrence, . . . . .	12 82.6	123,586 10	-	123,586 10	9,635	-
29	27	Rowley, . . . . .	12 17.8	2,301 68	-	2,301 68	189	-
19	28	Hamilton, . . . . .	12 00.0	2,508 10	-	2,508 10	209	-
30	29	Middleton, . . . . .	11 87.9	1,600 00	110 68	1,710 68	144	-
28	30	Ipswich, . . . . .	11 86.1	10,295 55	-	10,295 55	868	-
34	31	Newburyport, . . . . .	10 94.3	25,203 26	-	25,203 26	2,303	-
35	32	Salisbury, . . . . .	10 49.3	2,372 00	125 40	2,497 40	238	-
32	33	Amesbury, . . . . .	10 31.6	16,940 41	-	16,940 41	1,642	-
31	34	Rockport, . . . . .	10 15.5	7,799 23	-	7,799 23	768	-
33	35	Wenham, . . . . .	9 90.0	1,400 00	174 14	1,574 14	159	-

## FRANKLIN COUNTY.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
4	1	SHELBURNE, . . . . .	\$21 85.0	\$4,150 45	\$110 45	\$4,260 90	195	-
2	2	Sunderland, . . . . .	21 38.8	1,925 00	-	1,925 00	90	-
1	3	Ashfield, . . . . .	20 90.4	2,244 71	75 71	2,320 45	111	-
3	4	Greenfield, . . . . .	17 56.4	20,357 61	-	20,357 61	1,159	-
6	5	Orange, . . . . .	16 44.5	15,162 44	-	15,162 44	922	-
10	6	Deerfield, . . . . .	16 08.5	6,000 00	-	6,000 00	373	-
9	7	Conway, . . . . .	15 60.9	3,200 00	-	3,200 00	205	-
7	8	Montague, . . . . .	15 17.8	16,985 24	-	16,985 24	1,119	-
11	9	Northfield, . . . . .	14 42.9	3,000 00	203 26	3,203 26	222	\$19 00
8	10	Barnardston, . . . . .	13 63.0	1,688 09	124 72	1,812 81	133	-

18	Gill,	13 25.0	1,828 50	-	1,828 50	138
5	Leyden,	13 20.7	700 00	-	700 00	53
24	Monroe,	12 53.4	513 90	-	513 90	41
13	Whately,	12 03.7	1,300 00	-	1,300 00	108
25	Rowe,	11 49.1	807 00	54 89	861 89	75
17	New Salem,	11 43.7	1,500 00	89 85	1,589 85	139
23	Charlemont,	11 11.0	1,500 00	77 68	1,577 68	142
19	Buckland,	10 94.4	2,793 05	118 25	2,911 30	266
22	Erving,	10 68.5	2,100 00	58 52	2,158 52	202
16	Warwick,	10 40.1	1,029 77	-	1,029 77	99
15	Shutesbury,	10 28.3	600 00	78 71	678 71	66
14	Colrain,	10 10.2	2,757 97	121 21	2,879 18	285
12	Hawley,	9 67.7	774 20	-	774 20	80
21	Heath,	9 45.5	900 00	45 52	945 52	100
20	Wendell,	7 07.8	683 16	53 01	736 17	104
26	Leverett,	6 98.0	847 07	74 41	921 48	132
						25 00
						-

## HAMPDEN COUNTY.

2	1	SPRINGFIELD,	\$22 29.0	\$185,165 33	-	\$185,165 33	8,307
1	2	Longmeadow,	21 68.6	2,000 00	-	2,000 00	83
4	3	West Springfield,	19 69.6	23,242 17	-	23,242 17	1,180
9	4	Blandford,	18 76.7	2,050 00	\$127 00	2,177 00	116
5	5	Westfield,	17 96.7	32,845 25	-	32,845 25	1,828
8	6	Monson,	17 01.5	9,679 17	427 73	10,106 90	594
6	7	Palmer,	16 85.9	16,999 73	450 27	17,450 00	1,035
3	8	Hampden,	15 29.4	1,300 00	-	1,300 00	85
18	9	Brimfield,	13 88.4	1,874 43	-	1,874 43	135
10	10	Wilbraham,	12 76.1	3,318 00	-	3,318 00	260
11	11	Montgomery,	12 32.0	600 00	40 68	640 68	52
7	12	Holyoke,	12 30.5	108,226 47	-	108,226 47	8,795

## BOARD OF EDUCATION.

## HAMPDEN COUNTY — CONCLUDED.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
13	13	Ludlow, . . . . .	\$12 11.3	\$5,380 52	\$119 07	\$5,499 59	454	\$746 00
14	14	East Longmeadow, . . . . .	11 90.1	3,713 32	130 86	3,844 18	323	-
16	15	Agawan, . . . . .	11 58.1	5,663 35	-	5,663 35	489	-
19	16	Russell, . . . . .	11 32.0	1,800 00	-	1,800 00	159	-
23	17	Wales, . . . . .	11 06.8	1,522 49	82 47	1,604 96	145	-
12	18	Granville, . . . . .	10 69.1	2,202 40	-	2,202 40	206	-
21	19	Chester, . . . . .	10 46.9	2,669 67	-	2,669 67	255	-
15	20	Holland, . . . . .	10 23.8	225 00	20 74	245 74	24	-
17	21	Chicopee, . . . . .	10 08.5	26,886 99	-	26,886 99	2,666	-
22	22	Southwick, . . . . .	9 23.4	1,639 60	161 09	1,800 69	195	-
20	23	Tolland, . . . . .	8 77.1	500 00	-	500 00	57	10 00

## HAMPSHIRE COUNTY.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	AMHERST, . . . . .	\$20 00.6	\$12,183 42	\$360 87	\$12,544 29	627	\$235 00
4	2	Easthampton, . . . . .	15 88.8	13,611 78	306 23	13,918 01	876	-
6	3	Northampton, . . . . .	15 57.0	41,790 43	1,011 68	42,802 11	2,749	-
3	4	Granby, . . . . .	15 38.4	1,800 00	-	1,800 00	117	-
2	5	South Hadley, . . . . .	15 17.5	11,730 41	-	11,730 41	773	-
7	6	Prescott, . . . . .	15 13.4	700 00	56 71	756 71	50	-
11	7	Ware, . . . . .	15 05.5	20,294 55	-	20,294 55	1,348	-
5	8	Enfield, . . . . .	14 70.5	2,500 00	-	2,500 00	170	-
16	9	Williamsburg, . . . . .	13 20.9	3,995 16	152 60	4,147 76	314	-
20	10	Cummington, . . . . .	12 91.8	1,393 95	104 65	1,498 60	116	-

## SCHOOL RETURNS.

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12	11	Hatfield, . . . . .	12 69.2	2,750 00	143 84	2,893 84	228
8	12	Middlefield, . . . . .	11 85.2	800 00	6 00	806 00	68
14	13	Hadley, . . . . .	11 30.1	3,300 00	-	3,300 00	292
9	14	Chesterfield, . . . . .	11 25.5	900 00	56 71	956 71	85
17	15	Pelham, . . . . .	10 60.8	862 25	103 11	965 36	91
15	16	Belchertown, . . . . .	10 30.9	5,000 00	-	5,000 00	485
10	17	Westhampton, . . . . .	10 22.7	900 00	-	900 00	88
13	18	Worthington, . . . . .	10 11.6	1,045 60	198 69	1,244 29	123
18	19	Greenwich, . . . . .	10 00.0	750 00	-	750 00	75
19	20	Huntington, . . . . .	9 13.1	2,575 00	-	2,575 00	282
22	21	Southampton, . . . . .	7 02.2	1,550 00	37 13	1,587 13	226
21	22	Plainfield, . . . . .	6 44.6	500 00	47 95	547 95	85
23	23	Goshen, . . . . .	6 14.0	350 00	-	350 00	57
							100 00
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## MIDDLESEX COUNTY.

1	1	WESTON, . . . . .	\$50 27.5	\$9,803 68	-	\$9,803 68	195
4	2	Tyngsborough, . . . . .	43 53.1	3,526 06	-	3,526 06	81
2	3	Sherborn, . . . . .	35 41.1	3,703 00	\$121 41	3,824 41	108
5	4	Sudbury, . . . . .	32 25.9	5,100 00	222 87	5,322 87	165
15	5	Littleton, . . . . .	28 70.1	4,645 66	176 13	4,821 79	168
7	6	Newton, . . . . .	28 03.7	133,723 29	2,568 42	136,291 71	4,861
3	7	Lexington, . . . . .	27 68.8	15,034 93	-	15,034 93	543
6	8	Concord, . . . . .	26 67.3	18,218 00	-	18,218 00	683
34	9	Dunstable, . . . . .	26 60.9	1,330 45	-	1,330 45	50
11	10	Belmont, . . . . .	25 66.2	11,240 29	-	11,240 29	438
8	11	Lincoln, . . . . .	25 42.2	4,042 13	-	4,042 13	159
9	12	Medford, . . . . .	24 86.1	62,750 25	-	62,750 25	2,524
12	13	Winchester, . . . . .	24 26.2	25,500 38	-	25,500 38	1,051
10	14	Arlington, . . . . .	23 65.9	26,853 00	-	26,853 00	1,135
29	15	North Reading, . . . . .	22 68.1	2,993 91	-	2,993 91	132
							374 00
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## MIDDLESEX COUNTY — CONCLUDED.

For 1895-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
21	16	Groton,	\$22 15.8	\$7,100 00	\$1,032 00	\$8,132 00	367	-
38	17	Wayland,	21 84.4	7,997 40	153 61	8,151 01	373	-
17	18	Watertown,	21 82.3	26,689 92	-	26,689 92	1,223	\$250 00
27	19	Holliston,	21 68.2	8,629 54	-	8,629 54	398	-
14	20	Melrose,	20 78.6	42,195 76	-	42,195 76	2,030	-
13	21	Burlington,	20 55.8	1,563 28	122 55	1,685 83	82	-
23	22	Somerville,	20 55.6	182,642 21	-	182,642 21	8,885	-
28	23	Hopkinton,	20 51.6	9,000 00	437 76	9,437 76	460	-
16	24	Cambridge,	20 49.4	279,990 12	1,108 50	281,098 62	13,716	-
20	25	Malden,	20 27.0	106,277 43	-	106,277 43	5,243	-
19	26	Acton,	20 23.4	4,957 50	-	4,957 50	215	-
18	27	Waltham,	19 57.7	68,235 07	-	68,235 07	3,485	-
22	28	Bedford,	18 99.5	3,590 24	-	3,590 24	189	87 04
35	29	Pepperell,	18 97.7	11,140 00	-	11,140 00	587	-
24	30	Framingham,	18 91.1	34,634 24	-	35,931 67	1,900	-
49	31	Westford,	18 58.6	7,100 00	1,297 43	7,100 00	382	-
32	32	Reading,	18 47.8	14,672 03	-	14,672 03	794	-
25	33	Natick,	18 42.7	27,881 30	-	27,881 30	1,513	-
26	34	Stoneham,	18 09.6	17,300 00	-	17,300 00	956	-
53	35	Dracut,	17 41.5	7,976 47	-	7,976 47	458	-
33	36	Wakefield,	17 10.9	25,680 80	-	25,680 80	1,501	-
30	37	Everett,	17 04.3	62,005 09	-	62,005 09	3,638	-
36	38	Hudson,	16 96.0	14,760 00	283 57	15,043 57	887	-
37	39	Ashby,	16 37.0	1,800 00	197 22	1,997 22	122	-
40	40	Maynard,	15 74.8	8,611 49	-	8,611 49	547	-
41	41	Ashland,	15 66.9	5,500 00	-	5,500 00	351	-

50	42	Townsend, .	15 62.4	5,000 00	-	5,000 00	320	-
48	43	BillERICA, .	15 53.6	6,810 95	289 11	7,100 06	457	-
44	44	Chelmsford, .	15 32.9	7,216 67	463 41	7,680 08	501	-
43	45	Wilmington, .	15 23.2	3,500 00	125 40	3,625 40	238	-
39	46	Boxborough, .	15 09.4	800 00	-	800 00	53	-
42	47	Tewksbury, .	14 77.6	6,442 74	-	6,442 74	436	-
31	48	Lowell, .	14 69.7	240,892 50	-	240,892 50	16,390	-
45	49	Ayer, .	14 61.8	5,200 00	223 44	5,423 44	371	-
47	50	Woburn, .	14 21.0	44,551 41	-	44,551 41	3,135	-
51	51	Stow, .	13 52.0	1,550 00	126 54	1,676 54	124	-
51	52	Carlisle, .	13 51.3	1,000 00	-	1,000 00	74	-
46	53	Marlborough, .	12 68.6	39,835 81	-	39,835 81	3,140	-
52	54	Shirley, .	10 19.5	2,395 00	133 52	2,528 52	248	125 00

## NANTUCKET COUNTY.

		NANTUCKET, .	\$11 92.0	\$5,111 75	\$252 60	\$5,364 35	450	-
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## NORFOLK COUNTY.

1	1	BROOKLINE, .	\$40 82.6	\$103,250 00	-	\$103,250 00	2,529	-
3	2	Milton, .	37 00.1	38,111 86	-	38,111 86	1,030	-
2	3	Cohasset, .	31 49.7	11,557 49	\$254 10	11,811 59	375	-
4	4	Wellesley, .	27 69.4	17,308 84	-	17,308 84	625	-
5	5	Dedham, .	26 40.2	33,267 56	-	33,267 56	1,260	-
6	6	Dover, .	23 96.4	2,132 83	-	2,132 83	89	-
8	7	Walpole, .	20 35.4	9,748 39	408 65	10,157 04	499	-
7	8	Weymouth, .	20 09.3	36,836 25	819 11	37,655 36	1,874	-
12	9	Wrentham, .	19 39.4	8,650 00	446 19	9,096 19	469	-

## BOARD OF EDUCATION.

## NORFOLK COUNTY — CONCLUDED.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
For 1895-96.	For 1896-97.							
9	10	Braintree,	\$19 14.6	\$15,538 63	\$717 14	\$16,255 77	849	\$125 00
19	11	Medfield,	19 00.8	4,371 90	-	4,371 90	230	-
13	12	Holbrook,	18 53.3	7,746 93	-	7,746 93	418	-
11	13	Canton,	18 39.6	13,800 00	494 11	14,294 11	777	1,400 00
10	14	Needham,	18 12.2	11,181 57	-	11,181 57	617	-
16	15	Norwood,	18 03.8	15,169 98	-	15,169 98	841	-
18	16	Millis,	17 79.6	2,776 25	-	2,776 25	156	-
15	17	Randolph,	17 60.2	9,849 69	447 88	10,297 57	585	-
25	18	Medway,	17 27.8	8,000 00	-	8,000 00	463	-
17	19	Foxborough,	16 98.4	7,912 00	885 95	8,797 95	518	-
22	20	Norfolk,	16 94.8	2,559 20	-	2,559 20	151	-
14	21	Sharon,	16 90.5	3,600 00	153 00	3,753 00	222	-
20	22	Hyde Park,	16 13.1	35,827 53	-	35,827 53	2,221	-
21	23	Quincy,	15 73.7	73,998 47	-	73,998 47	4,702	-
24	24	Avon,	15 36.8	3,995 91	-	3,995 91	260	-
27	25	Bellingham,	14 86.2	3,736 85	365 19	4,102 04	276	-
26	26	Franklin,	14 11.4	11,263 16	-	11,263 16	798	22 00
23	27	Stoughton,	12 88.1	10,755 64	-	10,755 64	835	100 00

## PLYMOUTH COUNTY.

1	2	3						
1	1	HULL,	\$58 45.8	\$7,015 00	-	\$7,015 00	120	-
2	2	Hingham,	24 42.6	15,379 57	\$571 20	15,950 77	653	-
4	3	Bridgewater,	23 13.5	11,957 84	396 49	12,354 33	534	-



## SCHOOL RETURNS.

CV

3	4	Mattapoisett,	22	26.8	3,117 65	-	3,117 65	140	-
5	5	Abington,	21	55.7	14,228 20	-	14,228 20	660	-
13	6	Marshfield,	20	32.8	3,800 00	306 31	4,106 31	202	-
8	7	Whitman,	20	15.2	16,914 02	517 65	17,431 67	865	-
7	8	Plymouth,	19	60.2	25,758 23	-	25,758 23	1,314	-
10	9	Hanover,	19	45.8	5,653 78	222 78	5,876 56	302	\$250.00
12	10	East Bridgewater,	18	86.2	7,764 20	365 42	8,129 62	431	-
6	11	Kingston,	18	85.5	5,194 64	198 05	5,392 69	286	-
14	12	Rockland,	17	72.4	16,484 11	-	16,484 11	930	-
11	13	Middleborough,	17	65.1	17,351 65	-	17,351 65	983	-
15	14	Brockton,	17	41.4	100,746 90	1,407 65	102,154 55	5,866	-
9	15	Norwell,	16	74.3	3,650 00	251 12	3,901 12	233	5 00
27	16	Halifax,	15	78.9	1,200 00	-	1,200 00	76	-
19	17	Wareham,	15	56.6	7,923 32	-	7,923 32	509	-
23	18	Duxbury,	15	56.4	4,000 00	264 60	4,264 60	274	-
18	19	West Bridgewater,	14	43.3	3,767 17	-	3,767 17	261	-
20	20	Marion,	14	23.5	2,000 00	135 34	2,135 34	150	-
17	21	Plympton,	14	02.1	800 00	83 38	883 38	63	-
22	22	Scituate,	13	11.1	5,500 00	216 68	5,716 68	436	-
16	23	Carver,	12	85.7	1,711 15	140 32	1,851 47	144	-
26	24	Pembroke,	12	46.4	2,280 75	112 34	2,393 09	192	-
24	25	Hanson,	11	75.2	2,250 00	171 00	2,421 00	206	-
21	26	Lakeville,	11	36.3	1,500 00	-	1,500 00	132	-
25	27	Rochester,	7	63.4	982 00	224 18	1,206 18	158	-

## SUFFOLK COUNTY.

2	1	BOSTON,	\$24	43.6	\$1,378,157 33	\$41,632 89	\$1,919,790 22	78,561	-
1	2	Winthrop,	21	34.8	14,700 00	414 95	15,114 95	708	-
4	3	Chelsea,	14	60.3	77,042 07	5,232 50	82,274 57	5,634	-
3	4	Revere,	14	21.5	24,579 00	-	24,579 00	1,729	-

## BOARD OF EDUCATION.

## WORCESTER COUNTY.

For 1893-96.	For 1896-97.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
8	1	PETERSHAM,	\$27 49.7	\$2,773 98	\$168 80	\$2,942 28	107	-
4	2	Sterling,	24 24.3	3,768 99	231 13	4,000 12	165	-
1	3	Princeton,	23 47.9	2,700 00	211 42	2,911 42	124	-
2	4	Lancaster,	22 67.8	8,005 34	-	8,005 34	353	-
7	5	Hopedale,	21 58.8	5,224 47	-	5,224 47	242	-
3	6	Harvard,	21 37.1	3,162 94	-	3,162 94	148	-
10	7	New Braintree,	19 72.4	1,612 00	104 00	1,716 00	87	-
9	8	Worcester,	19 69.6	359,881 78	-	359,881 78	18,271	-
12	9	Upton,	19 49.5	4,299 91	339 97	4,639 88	238	-
14	10	Barre,	18 57.2	6,203 05	-	6,203 05	334	-
13	11	Shrewsbury,	18 11.7	4,475 00	-	4,475 00	217	-
21	12	Uxbridge,	17 64.4	9,492 67	-	9,492 67	538	-
17	13	Fitchburg,	17 61.6	90,322 29	-	90,322 29	5,127	-
33	14	West Boylston,	17 52.1	8,200 00	-	8,200 00	408	-
11	15	Westborough,	17 45.9	11,872 48	-	11,872 48	680	-
30	16	Leicester,	16 93.9	8,970 09	481 89	9,451 98	558	-
45	17	Hubbardston,	16 86.1	3,035 00	-	3,035 00	180	-
24	18	Lunenburg,	16 67.2	2,984 29	-	2,984 29	179	-
6	19	Leominster,	16 65.7	25,901 64	-	25,901 64	1,555	\$50 00
5	20	Southborough,	16 65.2	5,961 67	-	5,961 67	358	-
31	21	Oxford,	16 55.0	6,175 79	478 58	6,654 37	402	14 00
27	22	Mendon,	16 48.6	2,026 91	182 32	2,209 23	134	-
26	23	Athol,	16 14.5	16,952 45	-	16,952 45	1,050	-
36	24	Blackstone,	16 02.2	11,183 96	-	11,183 96	698	-
28	25	Grafton,	15 87.0	14,775 09	-	14,775 09	931	-
19	26	Warren,	15 72.5	14,341 72	-	14,341 72	912	-

## SCHOOL RETURNS.

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20	Holden,	15	6,751	403	7,155	461
16	Northborough,	47.9	5,000	-	5,000	323
18	Bolton,	15	1,500	143	1,643	109
43	Hardwick,	15	6,496	1,162	7,659	508
15	Phillipston,	15	1,100	-	1,100	73
23	Northbridge,	14	17,262	-	17,262	1,152
46	Gardner,	14	24,284	-	24,284	1,635
25	Westminster,	14	3,463	-	3,463	238
22	Milford,	14	20,921	-	20,921	1,459
35	Spencer,	13	22,068	581	22,649	1,626
37	West Brookfield,	13	3,337	-	3,337	240
34	Brookfield,	13	7,625	391	8,016	577
48	Sturbridge,	13	4,605	-	4,605	386
37	Charlton,	13	3,572	323	3,895	291
32	Boylston,	13	1,650	-	1,650	124
55	Paxton,	13	706	75	781	59
29	Ashburnham,	12	4,850	-	4,850	374
44	Clinton,	12	27,814	-	27,814	2,149
42	Rutland,	12	2,059	83	2,143	170
51	Oakham,	11	1,200	171	1,371	115
39	Douglas,	11	5,148	-	5,148	438
54	Auburn,	11	3,322	296	3,618	310
49	Templeton,	11	6,461	-	6,461	560
49	Millbury,	11	10,419	-	10,419	913
38	Dudley,	10	5,794	260	6,055	560
47	Winchendon,	10	8,845	-	8,845	822
57	Royalston,	10	1,200	120	1,320	125
52	Dana,	10	900	-	900	86
50	North Brookfield,	10	8,921	414	9,335	933
58	Southbridge,	8	14,187	-	14,187	1,651
56	Sutton,	8	5,350	377	5,727	692
59	Webster,	8	11,092	516	11,608	1,421
53	Berlin,	7	1,200	76	1,276	164
						35 00
						2,219 00
						80 00

GRADUATED TABLES—FIRST SERIES.

*Showing the Comparative Amount of Money appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.*

For 1895-96.	For 1896-97.	COUNTIES.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	Suffolk,	\$23 56.8	\$1,994,478 40	\$47,280 34	\$2,041,758 74	86,632	—
2	2	Norfolk,	21 46.0	502,946 93	4,991 32	507,938 25	23,669	\$1,647 00
3	3	Middlesex,	19 18.7	1,681,590 00	9,082 89	1,690,672 89	88,112	983 60
5	4	Barnstable,	19 00.1	79,702 92	1,319 97	81,022 89	4,264	—
4	5	Plymouth,	18 27.0	288,930 18	5,584 51	294,514 69	16,120	255 00
6	6	Worcester,	16 26.5	883,415 19	7,595 41	891,010 60	54,780	2,398 00
7	7	Hampden,	16 07.1	439,503 89	1,559 91	441,063 80	27,443	756 00
8	8	Essex,	15 33.5	846,253 46	5,478 79	851,732 25	55,540	50 00
9	9	Franklin,	14 73.3	95,348 19	1,286 22	96,634 41	6,559	44 00
12	10	Hampshire,	14 30.0	131,282 55	2,586 17	133,868 72	9,361	335 00
10	11	Dukes,	14 26.4	7,562 60	254 34	7,816 94	548	—
11	12	Bristol,	13 76.6	568,295 60	9,145 43	577,441 03	41,944	2,000 00
13	13	Berkshire,	13 46.9	212,393 82	2,649 99	215,043 81	15,965	383 52
14	14	Nantucket,	11 92.0	5,111 75	252 60	5,364 35	450	—
AGGREGATE FOR THE STATE.								
STATE, . . . . .			\$18 16.4	\$7,736,815 48	\$99,067 89	\$7,835,883 37	431,387	\$8,852 12

## GRADUATED TABLES—FIRST SERIES.

*Showing the Comparative Amount of Money, including Voluntary Contributions, appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.*

For 1895-96.	For 1896-97.	COUNTIES.	TOTALS.
1	1	Suffolk, . . . . .	\$23 56.8
2	2	Norfolk, . . . . .	21 52.9
3	3	Middlesex, . . . . .	19 19.8
5	4	Barnstable, . . . . .	19 00.1
4	5	Plymouth, . . . . .	18 28.5
6	6	Worcester, . . . . .	16 30.9
7	7	Hampden, . . . . .	16 09.9
8	8	Essex, . . . . .	15 33.6
9	9	Franklin, . . . . .	14 73.9
12	10	Hampshire, . . . . .	14 33.6
10	11	Dukes, . . . . .	14 26.4
11	12	Bristol, . . . . .	13 81.4
13	13	Berkshire, . . . . .	13 49.3
14	14	Nantucket, . . . . .	11 92.0
STATE, . . . . .			\$18 18.4

## GRADUATED TABLES—SECOND SERIES.

The next Table exhibits the appropriation of the cities and towns, as compared with their respective valuation in 1896.

The first column shows the rank of the cities and towns in a similar Table for 1895-96, according to their valuation in 1895.

The second column indicates, in numerical order, the precedence of the cities and towns in respect to the liberality of their appropriations for 1896-97, according to their valuation in 1896.

The third consists of the names of the cities and towns, as numerically arranged.

The fourth shows the percentage of taxable property appropriated to the support of the public schools. The result is equivalent in value to mills and hundredths of mills. The decimals are carried to three figures, in order to indicate more perfectly the distinction between the different towns. The first figure (mills) expresses the principal value, and is separated from the last two figures by a dash.

The appropriations for schools are not given in the following Table, as they may be found by referring to the previous Tables; also in the Abstract of School Returns, commencing on page ii. These appropriations include the sum raised by taxes, the income of the surplus revenue, and of such other funds as the towns may appropriate at their option, either to support common schools, or to pay ordinary municipal expenses. The income of other local funds, and the voluntary contributions, are not included in the estimate. The appropriations are reckoned the same as in the first series of Tables, and for the same reasons.

The amount of taxable property in each city and town, according to the last State valuation, is also omitted, as it is already given in the foregoing Abstract of School Returns.

If the rank assigned to towns in the next Tables is compared with the rank of the same towns in the former series, it will be seen that they hold, in many instances, a very different place in the scale.

## GRADUATED TABLES — SECOND SERIES.

[FOR THE STATE.]

*A Graduated Table in which all the Towns in the State are numerically arranged according to the Percentage of their Taxable Property appropriated for the support of Public Schools for the Year 1896-97.*

For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Val- uation appropriated to Public Schools — equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Val- uation appropriated to Public Schools — equivalent to mills and hundredths of mills.
20	1	TYNGBOROUGH, .	\$.009-21	28	34	New Salem, .	\$.005-67
1	2	W. Stockb'dge, .	.007-66	173	35	Bellingham, .	.005-64
6	3	Florida, .	.006-85	35	36	Pelham, .	.005-63
75	4	Auburn, .	.006-61	53	37	N. Reading, .	.005-63
11	5	W. Boylston, .	.006-44	132	38	Westford, .	.005-62
7	6	Palmer, .	.006-42	318	39	Mashpee, .	.005-59
4	7	Holbrook, .	.006-41	127	40	Medway, .	.005-58
3	8	Granville, .	.006-32	25	41	North Adams, .	.005-56
17	9	Abington, .	.006-21	98	42	Pepperell, .	.005-52
16	10	Wrentham, .	.006-16	21	43	Northbridge, .	.005-51
38	11	Heath, .	.006-15	97	44	Littleton, .	.005-50
8	12	Clarksburg, .	.006-14	96	45	Holliston, .	.005-48
73	13	Orleans, .	.006-14	66	46	Erving, .	.005-47
18	14	Grafton, .	.006-11	40	47	Randolph, .	.005-46
19	15	E. Longm'd'w, .	.006-09	45	48	Provincetown, .	.005-46
258	16	Wales, .	.006-02	55	49	Rockland, .	.005-46
31	17	Mansfield, .	.006 01	193	50	Wayland, .	.005-46
5	18	Holden, .	.005-96	2	51	Hawley, .	.005-44
27	19	Adams, .	.005-91	68	52	Rehoboth, .	.005-44
23	20	Bradford, .	.005-90	71	53	Bridgewater, .	.005-40
26	21	Monson, .	.005-90	33	54	Truro, .	.005-39
32	22	Brookfield, .	.005-89	47	55	Dighton, .	.005-36
22	23	Belchertown, .	.005-88	60	56	W Springfield, .	.005-34
15	24	Merrimac, .	.005-87	52	57	Orange, .	.005-31
43	25	Dennis, .	.005-86	91	58	Oxford, .	.005-30
36	26	Georgetown, .	.005-85	50	59	Westminster, .	.005-28
14	27	N Attleboro', .	.005-82	61	60	Warren, .	.005-25
24	28	Spencer, .	.005-79	37	61	N. Brookfield, .	.005-24
10	29	Weymouth, .	.005-76	288	62	Cummington, .	.005-24
13	30	Dudley, .	.005-75	29	63	Lee, .	.005-20
9	31	South Hadley, .	.005-73	58	64	Hinsdale, .	.005-20
41	32	E.B'dgewater, .	.005-69	48	65	Chatham, .	.005-18
12	33	Groveland, .	.005-67	49	66	Sandwich, .	.005-17

For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valua- tion appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valua- tion appropriated to Public Schools— equivalent to mills and hundredths of mills.
44	67	Buckland, .	\$.005-12	156	117	Ashfield, .	\$.004-54
69	68	Hudson, .	.005-12	81	118	Peru, . .	.004-53
165	69	Hardwick, .	.005-12	104	119	Savoy, . .	.004-53
114	70	Blandford, .	.005-11	54	120	Ashburnham,	.004-52
78	71	Huntington, .	.005-10	103	121	Norwell, .	.004-51
46	72	Easthampton, .	.005-09	117	122	Sheffield, .	.004-50
63	73	Avon, . . .	.005-08	80	123	Marlborough,	.004-49
136	74	Wellfleet, .	.005-08	79	124	Berkley, .	.004-48
42	75	Colrain, . .	.005-05	85	125	Harwich, .	.004-48
62	76	Templeton, .	.005-05	107	126	Middleboro', .	.004-48
84	77	Hopkinton, .	.005-03	110	127	Framingham,	.004-48
122	78	Sturbridge, .	.005-01	203	128	Townsend, .	.004-48
294	79	Rowe, . . .	.004-98	164	129	Halifax, .	.004-47
72	80	Natick, . . .	.004-96	242	130	Dracut, . .	.004-47
120	81	Norfolk, . .	.004-96	34	131	Sutton, . .	.004-46
82	82	Attleborough,	.004-94	137	132	Malden, . .	.004-46
51	83	Douglas, . .	.004-86	89	133	Walpole, . .	.004-42
56	84	Hanover, . .	.004-84	111	134	N. Andover, .	.004-42
57	85	Shelburne, .	.004-84	88	135	Wilbraham, .	.004-41
123	86	Ware, . . .	.004-84	162	136	Athol, . . .	.004-41
70	87	Dalton, . . .	.004-81	115	137	Shrewsbury, .	.004-39
83	88	Whitman, . .	.004-81	112	138	W. Brookfield,	.004-37
86	89	Gardner, . .	.004-77	113	139	Methuen, . .	.004-37
65	90	Swansea, . .	.094-76	240	140	Ashby, . . .	.004-37
116	91	Sherborn, . .	.004-76	92	141	Barre, . . .	.004-35
153	92	Williamsburg,	.004-76	140	142	Fitchburg, .	.004-34
74	93	Foxborough, .	.004-74	210	143	Oakham, . .	.004-33
77	94	Conway, . .	.004-73	286	144	Windsor, . .	.004-31
118	95	Prescott, . .	.004-72	106	145	Norwood, . .	.004-30
76	96	Concord, . .	.004-71	161	146	Agawam, . .	.004-30
183	97	Brimfield, . .	.004-71	109	147	Charlton, . .	.004-29
30	98	Sterling, . .	.004-69	134	148	Everett, . .	.004-29
145	99	Chester, . .	.004-69	130	149	Westborough,	.004-27
67	100	Ludlow, . . .	.004-68	141	150	Leicester, .	.004-27
64	101	Richmond, .	.004-66	121	151	Somerset, . .	.004-26
298	102	Dunstable, . .	.004-66	129	152	Blackstone, .	.004-26
90	103	Montague, . .	.004-65	170	153	Raynham, . .	.004-23
177	104	Hubbardston,	.004-65	138	154	Taunton, . .	.004-22
102	105	Ashland, . .	.004-64	139	155	Uxbridge, . .	.004-21
105	106	Danvers, . .	.004-64	176	156	Leominster, .	.004-21
94	107	Upton, . . .	.004-63	131	157	Shutesbury, .	.004-20
163	108	Sudbury, . .	.004-63	147	158	Quincy, . . .	.004-20
179	109	Brewster, . .	.004-62	149	159	Cheshire, . .	.004-20
93	110	Montgomery, .	.004-61	150	160	W. Newbury, .	.004-15
234	111	Petersham, .	.004-57	95	161	Northborough,	.004-14
99	112	Woburn, . . .	.004-56	152	162	Brockton, . .	.004-14
59	113	Millbury, . .	.004-55	128	163	Granby, . . .	.004-13
142	114	Sunderland, .	.004-55	155	164	Westfield, . .	.004-13
124	115	Charlemont, .	.004-54	133	165	Enfield, . . .	.004-12
135	116	Bernardston, .	.004-54	101	166	Westhampton,	.004-11



## SCHOOL RETURNS.

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For 1895-96, by the State Valuation of 1896.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1896.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
125	167	Tewksbury, .	\$.004-10	175	217	Plymouth, .	\$.003-70
126	168	Rutland, .	.004-09	167	218	Melrose, .	.003-69
108	169	Phillipston, .	.004-07	261	219	Millis, .	.003-68
195	170	Wakefield, .	.004-05	215	220	Waltham, .	.003-67
187	171	Saugus, .	.004-04	224	221	Lynn, .	.003-67
169	172	Southborough, .	.004-03	144	222	Holyoke, .	.003-66
206	173	Mendon, .	.004-03	192	223	Andover, .	.003-66
200	174	Salisbury, .	.004-02	194	224	Monterey, .	.003-66
202	175	Amherst, .	.004-02	257	225	Russell, .	.003-66
181	176	Gloucester, .	.004-00	271	226	Bedford, .	.003-66
188	177	Maynard, .	.003-98	272	227	Southwick, .	.003-66
196	178	Southbridge, .	.003-98	207	228	Hanson, .	.003-65
154	179	Worthington, .	.003-97	159	229	Essex, .	.003-64
166	180	Ayer, .	.003-97	100	230	Deerfield, .	.003-63
182	181	Hyde Park, .	.003-97	190	231	Stoneham, .	.003-63
184	182	Norton, .	.003-97	233	232	Winchester, .	.003-63
209	183	Pittsfield, .	.003-95	221	233	Canton, .	.003-61
231	184	Billerica, .	.003-93	249	234	N. Marlboro', .	.003-61
160	185	New Braintree, .	.003-92	222	235	Chelsea, .	.003-59
168	186	Worcester, .	.003-92	316	236	New Ashford, .	.003-59
172	187	Middlefield, .	.003-92	197	237	Barnstable, .	.003-58
178	188	Haverhill, .	.003-92	305	238	Monroe, .	.003-57
189	189	Lunenburg, .	.003-91	254	239	Lawrence, .	.003-54
205	190	Clinton, .	.003-91	265	240	Medford, .	.003-54
174	191	Hingham, .	.003-90	217	241	Wilmington, .	.003-53
211	192	Northampton, .	.003-90	229	242	Marblehead, .	.003-53
218	193	Gt Barrington, .	.003-90	226	243	Tolland, .	.003-52
214	194	Williamstown, .	.003-88	238	244	Northfield, .	.003-52
204	195	Milford, .	.003-85	281	245	Chelmsford, .	.003-52
251	196	Greenfield, .	.003-85	274	246	Rowley, .	.003-51
283	197	Gay Head, .	.003-85	199	247	Boxborough, .	.003-48
171	198	Franklin, .	.003-84	213	248	Lexington, .	.003-48
245	199	Wareham, .	.003-82	157	249	Shirley, .	.003-46
260	200	Lanesborough, .	.003-81	225	250	Bolton, .	.003-46
248	201	Kingston, .	.003-79	228	251	Ipswich, .	.003-45
87	202	Longmeadow, .	.003-78	239	252	Hadley, .	.003-45
268	203	Dedham, .	.003-78	259	253	Lowell, .	.003-44
186	204	Easton, .	.003-77	246	254	Fairhaven, .	.003-42
180	205	Stoughton, .	.003-76	273	255	Arlington, .	.003-42
185	206	Peabody, .	.003-76	223	256	Princeton, .	.003-41
212	207	Reading, .	.003-76	236	257	Chesterfield, .	.003-41
146	208	Needham, .	.003-75	237	258	Harvard, .	.003-41
232	209	Pembroke, .	.003-75	252	259	Plainfield, .	.003-39
148	210	Braintree, .	.003-74	287	260	Freetown, .	.003-39
275	211	Gill, .	.003-74	266	261	Becket, .	.003-37
119	212	Otis, .	.003-73	230	262	Acushnet, .	.003-36
243	213	Webster, .	.003-73	250	263	Cambridge, .	.003-35
143	214	W Bridgew't'r, .	.003-72	263	264	Leverett, .	.003-35
208	215	Winchendon, .	.003-72	216	265	Burlington, .	.003-33
235	216	Somerville, .	.003-72	267	266	Amesbury, .	.003-32

For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools equivalent to mills and hundredths of mills.
285	267	Medfield, .	%.003-32	296	311	Lancaster, .	%.002-64
247	268	Westport, .	%.003-30	320	312	Newburyport, .	%.002-58
262	269	Southampton, .	%.003-29	300	313	Cohasset, .	%.002-57
256	270	Fall River, .	%.003-28	319	314	Goshen, .	%.002-57
151	271	Hampden, .	%.003-24	311	315	Dover, .	%.002-56
244	272	Acton, .	%.003-24	313	316	Seekonk, .	%.002-53
334	273	Newbury, .	%.003-24	289	317	Tisbury, .	%.002-51
269	274	Salem, .	%.003-21	332	318	Stow, .	%.002-50
220	275	Sandisfield, .	%.003-16	315	319	New Bedford, .	%.002-49
198	276	Warwick, .	%.003-15	303	320	Edgartown, .	%.002-48
277	277	Boylston, .	%.003-15	304	321	Scituate, .	%.002-46
201	278	Whately, .	%.003-13	326	322	Stockbridge, .	%.002-41
276	279	Weston, .	%.003-13	307	323	Wellesley, .	%.002-40
280	280	Eastham, .	%.003-13	253	324	Rochester, .	%.002-39
219	281	Revere, .	%.003-11	324	325	Lenox, .	%.002-36
290	282	Marshfield, .	%.003-11	39	326	Leyden, .	%.002-33
333	283	Topsfield, .	%.003-11	325	327	Hopedale, .	%.002-30
282	284	Middleton, .	%.003-09	317	328	Marion, .	%.002-29
255	285	Wendell, .	%.003-06	308	329	Boxford, .	%.002-28
297	286	Yarmouth, .	%.003-06	331	330	Hancock, .	%.002-27
227	287	Lakeville, .	%.003-05	278	331	Carver, .	%.002-25
284	288	Chicopee, .	%.003-05	328	332	Wenham, .	%.002-23
306	289	Lynnfield, .	%.003-05	335	333	Swampscott, .	%.002-22
279	290	Bourne, .	%.003-01	336	334	Mattapoisett, .	%.002-15
292	291	Springfield, .	%.003-01	337	335	Beverly, .	%.002-12
314	292	Hatfield, .	%.003-01	346	336	Milton, .	%.002-00
241	293	Dana, .	%.002-96	327	337	Sharon, .	%.001-98
322	294	Groton, .	%.002-95	338	338	Boston, .	%.001-95
158	295	Tyringham, .	%.002-93	330	339	Egremont, .	%.001-91
321	296	Greenwich, .	%.002-88	347	340	Lincoln, .	%.001-89
293	297	Watertown, .	%.002-85	339	341	Hull, .	%.001-88
295	298	Carlisle, .	%.002-85	349	342	Falmouth, .	%.001-87
270	299	Rockport, .	%.002-82	341	343	West Tisbury, .	%.001-86
312	300	Plympton, .	%.002-80	340	344	Nantucket, .	%.001-80
264	301	Holland, .	%.002-77	344	345	Chilmark, .	%.001-69
329	302	Duxbury, .	%.002-76	345	346	Brookline, .	%.001-69
299	303	Dartmouth, .	%.002-75	348	347	Alford, .	%.001-69
301	304	Newton, .	%.002-72	342	348	Cottage City, .	%.001-53
302	305	Belmont, .	%.002-72	323	349	Hamilton, .	%.001-45
343	306	Paxton, .	%.002-71	350	350	Mt. Wash'gton, .	%.000-91
309	307	Royalston, .	%.002-69	351	351	Nahant, .	%.000-91
191	308	Washington, .	%.002-66	352	352	Manchester, .	%.000-91
291	309	Winthrop, .	%.002-66	353	353	Gosnold, .	%.000-31
310	310	Berlin, ..	%.002-66				

## GRADUATED TABLES—SECOND SERIES.

## [COUNTY TABLES.]

*In which all the Towns in the respective Counties in the State are numerically arranged according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1896-97.*

## BARNSTABLE COUNTY.

For 1895-96, by the State Valuation of 1896.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1896.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.
6	1	ORLEANS, .	\$.006-14	9	9	Brewster, .	\$.004-62
2	2	Dennis, .	.005-86	7	10	Harwich, .	.004-48
14	3	Mashpee, .	.005-59	10	11	Barnstable, .	.003-58
3	4	Provincetown, .	.005-46	12	12	Eastham, .	.003-13
1	5	Truro, .	.005-39	13	13	Yarmouth, .	.003-06
4	6	Chatham, .	.005-18	11	14	Bourne, .	.003-01
5	7	Sandwich, .	.005-17	15	15	Falmouth, .	.001-87
8	8	Wellfleet, .	.005-08				

## BERKSHIRE COUNTY.

1	1	W. STOCKBRIDGE, .	\$.007-66	19	17	Williamst'wn, .	\$.003-88
2	2	Florida, .	.006-85	23	18	Lanesboro', .	.003-81
3	3	Clarksburg, .	.006-14	13	19	Otis, .	.003-73
5	4	Adams, .	.005-91	17	20	Monterey, .	.003-66
4	5	North Adams, .	.005-56	22	21	N. Marlboro', .	.003-61
6	6	Lee, .	.005-20	26	22	New Ashford, .	.003-59
7	7	Hinsdale, .	.005-20	24	23	Becket, .	.003-37
9	8	Dalton, .	.004-81	21	24	Sandisfield, .	.003-16
8	9	Richmond, .	.004-66	15	25	Tyringham, .	.002-93
10	10	Peru, .	.004-53	16	26	Washington, .	.002-66
11	11	Savoy, .	.004-53	28	27	Stockbridge, .	.002-41
12	12	Sheffield, .	.004-50	27	28	Lenox, .	.002-36
25	13	Windsor, .	.004-31	30	29	Hancock, .	.002-27
14	14	Cheshire, .	.004-20	29	30	Egremont, .	.001-91
18	15	Pittsfield, .	.003-95	31	31	Alford, .	.001-69
20	16	Gt. Barrington, .	.003-90	32	32	Mt. Wash'gton, .	.000-91

## BOARD OF EDUCATION.

## BRISTOL COUNTY.

For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
2	1	MANSFIELD, .	\$.006-01	11	11	Norton, .	\$.003-97
1	2	N. Attleboro', .	.005-82	12	12	Easton, .	.003-77
5	3	Rehoboth, .	.005-44	14	13	Fairhaven, .	.003-42
3	4	Dighton, .	.005-36	17	14	Freetown, .	.003-39
7	5	Attleborough, .	.004-94	13	15	Acushnet, .	.003-36
4	6	Swansea, .	.004-76	15	16	Westport, .	.003-30
6	7	Berkley, .	.004-48	16	17	Fall River, .	.003-28
8	8	Somerset, .	.004-26	18	18	Dartmouth, .	.002-75
10	9	Raynham, .	.004-23	19	19	Seekonk, .	.002-53
9	10	Taunton, .	.004-22	20	20	New Bedford, .	.002-49

## DUKES COUNTY.

1	1	GAY HEAD, .	\$.003-85	6	5	Chilmark, .	\$.001-69
2	2	Tisbury, .	.002-51	5	6	Cottage City, .	.001-53
3	3	Edgartown, .	.002-48	7	7	Gosnold, .	.000-31
4	4	West Tisbury, .	.001-86				

## ESSEX COUNTY.

3	1	BRADFORD, .	\$.005-90	23	19	Rowley, .	\$.003-51
2	2	Merrimac, .	.005-87	17	20	Ipswich, .	.003-45
4	3	Georgetown, .	.005-85	20	21	Amesbury, .	.003-32
1	4	Groveland, .	.005-67	31	22	Newbury, .	.003-24
5	5	Danvers, .	.004-64	21	23	Salem, .	.003-21
6	6	N. Andover, .	.004-42	30	24	Topsfield, .	.003-11
7	7	Methuen, .	.004-37	24	25	Middleton, .	.003-09
8	8	W. Newbury, .	.004-15	25	26	Lynnfield, .	.003-05
13	9	Saugus, .	.004-04	22	27	Rockport, .	.002-82
15	10	Salisbury, .	.004-02	27	28	Newburyport, .	.002-58
11	11	Gloucester, .	.004-00	26	29	Boxford, .	.002-28
10	12	Haverhill, .	.003-92	29	30	Wenham, .	.002-23
12	13	Peabody, .	.003-76	32	31	Swampscott, .	.002-22
16	14	Lynn, .	.003-67	33	32	Beverly, .	.002-12
14	15	Andover, .	.003-66	28	33	Hamilton, .	.001-45
9	16	Essex, .	.003-64	34	34	Nahant, .	.000-91
19	17	Lawrence, .	.003-54	35	35	Manchester, .	.000-91
18	18	Marblehead, .	.003-53				

## SCHOOL RETURNS.

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## FRANKLIN COUNTY.

For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
3	1	HEATH, . . .	\$.006-15	15	14	Bernardston, . .	\$.004-54
2	2	New Salem, . .	.005-67	17	15	Ashfield, . . .	.004-54
9	3	Erving, . . .	.005-47	14	16	Shutesbury, . .	.004-20
1	4	Hawley, . . .	.005-44	21	17	Greenfield, . .	.003-85
7	5	Orange, . . .	.005-31	24	18	Gill, . . .	.003-74
6	6	Buckland, . . .	.005-12	12	19	Deerfield, . . .	.003-63
5	7	Colrain, . . .	.005-05	26	20	Monroe, . . .	.003-57
25	8	Rowe, . . .	.004-98	20	21	Northfield, . .	.003-52
8	9	Shelburne, . .	.004-84	23	22	Leverett, . . .	.003-35
10	10	Conway, . . .	.004-73	18	23	Warwick, . . .	.003-15
11	11	Montague, . .	.004-65	19	24	Whately, . . .	.003-13
16	12	Sunderland, . .	.004-55	22	25	Wendell, . . .	.003-06
13	13	Charlemont, . .	.004-54	4	26	Leyden, . . .	.002-33

## HAMPDEN COUNTY.

2	1	PALMER, . . .	\$.006-42	15	13	Agawam, . . .	\$.004-30
1	2	Granville, . . .	.006-32	14	14	Westfield, . . .	.004-13
3	3	E. L'gmeadow, .	.006-09	7	15	Longmeadow, .	.003-78
19	4	Wales, . . .	.006-02	11	16	Holyoke, . . .	.003-66
4	5	Monson, . . .	.005-90	18	17	Russell, . . .	.003-66
5	6	W. Springfield, .	.005-34	21	18	Southwick, . .	.003-66
10	7	Blandford, . . .	.005-11	17	19	Tolland, . . .	.003-52
16	8	Brimfield, . . .	.004-71	13	20	Hampden, . . .	.003-24
12	9	Chester, . . .	.004-69	22	21	Chicopee, . . .	.003-05
6	10	Ludlow, . . .	.004-68	23	22	Springfield, .	.003-01
9	11	Montgomery, . .	.004-61	20	23	Holland, . . .	.002-77
8	12	Wilbraham, . .	.004-41				

## HAMPSHIRE COUNTY.

2	1	BELCHERTOWN, .	\$.005-88	14	13	Amherst, . . .	\$.004-02
1	2	South Hadley, .	.005-73	12	14	Worthington, .	.003-97
3	3	Pelham, . . .	.005-63	13	15	Middlefield, .	.003-92
20	4	Cummington, .	.005-24	15	16	Northampton, .	.003-90
5	5	Huntington, . .	.005-10	17	17	Hadley, . . .	.003-45
4	6	Easthampton, .	.005-09	16	18	Chesterfield, .	.003-41
8	7	Ware, . . .	.004-84	18	19	Plainfield, . .	.003-39
11	8	Williamsburg, .	.004-76	19	20	Southampton, .	.003-29
7	9	Prescott, . . .	.004-72	21	21	Hatfield, . . .	.003-01
9	10	Granby, . . .	.004-13	23	22	Greenwich, . .	.002-88
10	11	Enfield, . . .	.004-12	22	23	Goshen, . . .	.002-57
6	12	Westhampton, .	.004-11				

## MIDDLESEX COUNTY.

For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
1	1	TYNGSBOROUGH, .	\$.009-21	34	28	Billerica, .	\$.003-93
2	2	N. Reading, .	.005-63	29	29	Reading, .	.003-76
16	3	Westford, .	.005-62	36	30	Somerville, .	.003-72
10	4	Pepperell, .	.005-52	22	31	Melrose, .	.003-69
9	5	Littleton, .	.005-50	31	32	Waltham, .	.003-67
8	6	Holliston, .	.005-48	43	33	Bedford, .	.003-66
25	7	Wayland, .	.005-46	24	34	Stoneham, .	.003-63
3	8	Hudson, .	.005-12	35	35	Winchester, .	.003-63
7	9	Hopkinton, .	.005-03	42	36	Medford, .	.003-54
4	10	Natick, .	.004-96	33	37	Wilmington, .	.003-53
14	11	Sherborn, .	.004-76	46	38	Chelmsford, .	.003-52
5	12	Concord, .	.004-71	27	39	Boxborough, .	.003-48
49	13	Dunstable, .	.004-66	30	40	Lexington, .	.003-48
12	14	Ashland, .	.004-64	19	41	Shirley, .	.003-46
20	15	Sudbury, .	.004-63	41	42	Lowell, .	.003-44
11	16	Woburn, .	.004-56	44	43	Arlington, .	.003-42
6	17	Marlborough, .	.004-49	40	44	Cambridge, .	.003-35
13	18	Framingham, .	.004-48	32	45	Burlington, .	.003-33
28	19	Townsend, .	.004-48	39	46	Acton, .	.003-24
38	20	Dracut, .	.004-47	45	47	Weston, .	.003-13
18	21	Malden, .	.004-46	52	48	Groton, .	.002-95
37	22	Ashby, .	.004-37	47	49	Watertown, .	.002-85
17	23	Everett, .	.004-29	48	50	Carlisle, .	.002-85
15	24	Tewksbury, .	.004-10	50	51	Newton, .	.002-72
26	25	Wakefield, .	.004-05	51	52	Belmont, .	.002-72
23	26	Maynard, .	.003-98	53	53	Stow, .	.002-50
21	27	Ayer, .	.003-97	54	54	Lincoln, .	.001-89

## NANTUCKET COUNTY.

	NANTUCKET, . . . . .	\$.001-80
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## NORFOLK COUNTY.

1	1	HOLBROOK, .	\$.006-41	6	9	Foxborough, .	\$.004-74
3	2	Wrentham, .	.006-16	7	10	Walpole, .	.004-42
2	3	Weymouth, .	.005-76	8	11	Norwood, .	.004-30
15	4	Bellingham, .	.005-64	12	12	Quincy, .	.004-20
10	5	Medway, .	.005-58	17	13	Hyde Park, .	.003-97
4	6	Randolph, .	.005-46	14	14	Franklin, .	.003-84
5	7	Avon, .	.005-08	20	15	Dedham, .	.003-78
9	8	Norfolk	.004-96	16	16	Stoughton, .	.003-76

## SCHOOL RETURNS.

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## NORFOLK COUNTY — CONCLUDED.

For 1895-96, by the State Valuation of 1896.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1895-96, by the State Valuation of 1896.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
11	17	Needham, .	\$.003-75	24	23	Dover, .	\$.002-56
13	18	Braintree, .	.003-74	23	24	Wellesley, .	.002-40
19	19	Millis, .	.003-68	27	25	Milton, .	.002-00
18	20	Canton, .	.003-61	25	26	Sharon, .	.001-98
21	21	Medfield, .	.003-32	26	27	Brookline, .	.001-69
22	22	Cohasset, .	.002-57				

## PLYMOUTH COUNTY.

1	1	ABINGTON, .	\$.006-21	9	15	W.Bridgew'r,	\$.003-72
2	2	E. Bridgew'r,	.005-69	13	16	Plymouth, .	.003-70
3	3	Rockland, .	.005-46	14	17	Hanson, .	.003-65
5	4	Bridgewater, .	.005-40	21	18	Marshfield, .	.003-11
4	5	Hanover, .	.004-84	15	19	Lakeville, .	.003-05
6	6	Whitman, .	.004-81	23	20	Plympton, .	.002-80
7	7	Norwell, .	.004-51	25	21	Duxbury, .	.002-76
8	8	Middleboro', .	.004-48	22	22	Scituate, .	.002-46
11	9	Halifax, .	.004-47	19	23	Rochester, .	.002-39
10	10	Brockton, .	.004-14	24	24	Marion, .	.002-29
12	11	Hingham, .	.003-90	20	25	Carver, .	.002-25
17	12	Wareham, .	.003-82	26	26	Mattapoisett, .	.002-15
18	13	Kingston, .	.003-79	27	27	Hull, .	.001-88
16	14	Pembroke, .	.003-75				

## SUFFOLK COUNTY.

2	1	CHELSEA, .	\$.003-59	3	3	Winthrop, .	\$.002-66
1	2	Revere, .	.003-11	4	4	Boston, .	.001-95

## WORCESTER COUNTY.

17	1	AUBURN, .	\$.006-61	15	11	Warren, .	\$.005-25
2	2	W. Boylston,	.006-44	10	12	N. Brookfield,	.005-24
4	3	Grafton, .	.006-11	36	13	Hardwick, .	.005-12
1	4	Holden, .	.005-96	16	14	Templeton, .	.005-05
8	5	Brookfield, .	.005-89	27	15	Sturbridge, .	.005-01
6	6	Spencer, .	.005-79	12	16	Douglas, .	.004-86
3	7	Dudley, .	.005-75	18	17	Gardner, .	.004-77
5	8	Northbridge, .	.005-51	7	18	Sterling, .	.004-69
19	9	Oxford, .	.005-30	40	19	Hubbardston,	.004-65
11	10	Westminster, .	.005-28	21	20	Upton, .	.004-63

## BOARD OF EDUCATION.

## WORCESTER COUNTY — CONCLUDED.

For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent in mills and hundredths of mills.	For 1895-96, by the State Valuation of 1895.	For 1896-97, by the State Valuation of 1896.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent in mills and hundredths of mills.
50	21	Petersham, .	\$.004-57	45	41	Mendon, .	\$.004-03
14	22	Millbury, .	.004-55	42	42	Southbridge, .	.003-98
13	23	Ashburnham, .	.004-52	34	43	N. Braintree, .	.003-92
9	24	Sutton, .	.004-46	37	44	Worcester, .	.003-92
35	25	Athol, .	.004-41	41	45	Lunenburg, .	.003-91
26	26	Shrewsbury, .	.004-39	44	46	Clinton, .	.003-91
25	27	W. Brookfield, .	.004-37	43	47	Milford, .	.003-85
20	28	Barre, .	.004-35	53	48	Webster, .	.003-73
32	29	Fitchburg, .	.004-34	46	49	Winchendon, .	.003-72
47	30	Oakham, .	.004-33	49	50	Bolton, .	.003-46
24	31	Charlton, .	.004-29	48	51	Princeton, .	.003-41
30	32	Westborough, .	.004-27	51	52	Harvard, .	.003-41
33	33	Leicester, .	.004-27	54	53	Boylston, .	.003-15
29	34	Blackstone, .	.004-26	52	54	Dana, .	.002-96
31	35	Uxbridge, .	.004-21	59	55	Paxton, .	.002-71
39	36	Leominster, .	.004-21	56	56	Royalston, .	.002-69
22	37	Northboro', .	.004-14	57	57	Berlin, .	.002-66
28	38	Rutland, .	.004-09	55	58	Lancaster, .	.002-64
23	39	Phillipston, .	.004-07	58	59	Hopedale, .	.002-30
38	40	Southborough, .	.004-03				



## GRADUATED TABLES — SECOND SERIES.

*Showing the different Counties in the State, numerically arranged, according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1896-97.*

For 1895-96, by the State Valuation of 1895.	COUNTIES.	Percentage of Valuation appropriated to Public Schools — equivalent to mills and hundredths of mills.	Amount of money raised by taxes, for the support of Public Schools.	Income of Surplus Revenue and other funds, including the dog tax, used at the option of the town.	TOTAL.	Valuation of 1896.	Amount contributed for board and fuel.
1	FRANKLIN.	\$.004-35	\$95,348 19	\$1,286 22	\$96,634 41	\$22,204,064	\$44 00
4	Hampshire, .	.004-33	131,282 55	2,586 17	133,868 72	30,881,794	335 00
2	Berkshire, .	.004-26	212,393 82	2,649 99	215,043 81	50,465,271	383 52
3	Worcester, .	.004-19	883,415 19	7,595 41	891,010 60	212,182,141	2,398 00
5	Plymouth, .	.003-99	288,930 18	5,584 51	294,514 69	73,760,771	255 00
6	Middlesex, .	.003-63	1,681,590 00	9,082 89	1,690,672 89	465,157,731	983 60
7	Barnstable, .	.003-61	79,702 92	1,319 97	81,022 89	22,395,497	—
8	Hampden, .	.003-53	439,503 89	1,559 91	441,063 80	124,651,842	756 00
9	Essex, .	.003-39	846,253 46	5,478 79	851,732 25	250,656,405	50 00
10	Bristol, .	.003-31	568,295 60	9,145 43	577,441 03	174,079,354	2,000 00
11	Norfolk, .	.002-96	502,946 93	4,991 32	507,938 25	171,261,493	1,647 00
13	Suffolk, .	.002-00	1,994,478 40	47,280 34	2,041,758 74	1,017,745,242	—
12	Dukes, .	.001 90	7,562 60	254 34	7,816 94	4,103,014	—
14	Nantucket, .	.001-80	5,111 75	252 60	5,364 35	2,975,659	—

## AGGREGATE FOR THE STATE.

STATE, .	\$.002-98	\$7,736,815 48	\$99,067 89	\$7,835,883 37	\$2,622,520,278	\$8,852 12
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## GRADUATED TABLES — SECOND SERIES.

*Showing the Arrangement of Counties according to their Appropriations, including Voluntary Contributions.*

For 1895-96, by the State Val- uation of 1895.	For 1896-97, by the State Val- uation of 1896.	COUNTIES.	Percentage of Val- uation appropriated to Public Schools — equivalent to mills and hundredths of mills.
1	1	FRANKLIN, . . . . .	\$.004-35
4	2	Hampshire, . . . . .	.004-34
2	3	Berkshire, . . . . .	.004-26
3	4	Worcester, . . . . .	.004-21
5	5	Plymouth, . . . . .	.003-99
7	6	Middlesex, . . . . .	.003-63
8	7	Barnstable, . . . . .	.003-61
6	8	Hampden, . . . . .	.003-54
9	9	Essex, . . . . .	.003-39
10	10	Bristol, . . . . .	.003-32
11	11	Norfolk, . . . . .	.002-97
13	12	Suffolk, . . . . .	.002-00
12	13	Dukes, . . . . .	.001-90
14	14	Nantucket, . . . . .	.001-80
STATE, . . . . .			\$.002-99

## GRADUATED TABLES—THIRD SERIES.

The following Table exhibits the ratio of the average attendance for the year in each town to the whole number of children between 5 and 15 according to the returns.

The ratio is expressed in decimals, continued to four figures, the first two of which are separated from the last two by a dash, as only the two former are essential to denote the real per cent. Yet the ratios of many towns are so nearly equal, or the difference is so small a fraction, that the first two decimals with the appropriate mathematical sign appended indicate no distinction. The continuation of the decimals, therefore, is simply to indicate a priority in cases where, without such continuation, the ratios would appear to be precisely similar.

In several cases the ratio of attendance exhibited in the Table is over 100 per cent. These results, supposing the registers to have been properly kept and the returns correctly made, are to be thus explained: The average attendance upon all Public Schools being compared with the whole number of children in the town between 5 and 15, the result may be over 100 per cent., because the attendance of children under 5 and over 15 may more than compensate for the absence of children between those ages. The rank of the towns standing highest in the following Table is in accordance with the returns. As the returns are often incorrect, the rank may be too high in some cases.

## GRADUATED TABLES — THIRD SERIES.

[FOR THE STATE]

*In which all the Towns in the State are numerically arranged according to the AVERAGE ATTENDANCE of the Children upon the Public Schools for the Year 1896-97.*

TOWNS.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	TOWNS.		No. of children between 5 and 15 years of age in each town.
							Average attendance upon School.
							Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	SHELburnE, .	195	249	1.27-68	33	Bolton, .	109
2	Sherborn, .	108	136	1.25-92	34	Medway, .	463
3	Ashfield, .	111	134	1.20-72	35	Norwell, .	233
4	Cottage City, .	135	160	1.18-51	36	Dunstable, .	50
5	Middlefield, .	68	80	1.17-64	37	Acton, .	245
6	Williamsb'rg, .	314	362	1.15-28	38	Greenfield, .	1,159
7	Marshfield, .	202	230	1.13-86	39	Randolph, .	585
8	Hanover, .	302	339	1.12-25	40	Bradford, .	808
9	Weston, .	195	216	1.10-76	41	Northboro', .	323
10	Blandford, .	116	127	1.09-48	42	W. Boylston, .	468
11	Marblehead, .	1,019	1,115	1.09-42	43	Merrimac, .	361
12	Enfield, .	170	182	1.07-05	44	W.Springfi'd, .	1,180
13	Rutland, .	170	182	1.07-05	45	Amherst, .	627
14	Winchester, .	1,051	1,120	1.06-56	46	Barnstable, .	628
15	Prescott, .	50	53	1.06-00	47	Gay Head, .	32
16	Boxborough, .	53	56	1.05-66	48	Granby, .	117
17	Hopkinton, .	460	485	1.05-43	49	Medfield, .	230
18	Upton, .	238	250	1.05-04	50	Sudbury, .	165
19	Concord, .	683	717	1.04-97	51	Groveland, .	398
20	Dennis, .	362	380	1.04-97	52	Weymouth, .	1,874
21	Braintree, .	849	890	1.04-82	53	Dana, .	86
22	Holliston, .	398	416	1.04-52	54	N. Attleboro', .	1,219
23	Westford, .	382	398	1.04-18	55	Wakefield, .	1,501
24	Littleton, .	168	175	1.04-16	56	Monterey, .	72
25	Bridgewater, .	534	556	1.04-11	57	Melrose, .	2,030
26	Whitman, .	865	898	1.03-81	58	Hingham, .	653
27	Ayer, .	371	385	1.03-77	59	Dalton, .	574
28	Orange, .	922	956	1.03-67	60	Medford, .	2,524
29	Norwood, .	841	869	1.03-32	61	Ashburnham, .	374
30	Natick, .	1,513	1,563	1.03-30	62	Mendon, .	134
31	Sterling, .	165	170	1.03-03	63	Dedham, .	1,260
32	Bourne, .	267	275	1.02-99	64	Maynard, .	547
							530
							.96-89

## SCHOOL RETURNS.

CXXV

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
65	Ashby, .	122	118	.96-72	113	N. Reading, .	132	121	.91-66
66	S. Hadley, .	773	747	.96-63	114	Cheshire, .	178	163	.91-57
67	Danvers, .	1,268	1,225	.96-60	115	Oxford, .	402	368	.91-54
68	Belmont, .	438	423	.96-57	116	Monson, .	594	542	.91-24
69	Abington, .	660	637	.96-51	117	Mansfield, .	670	611	.91-19
70	Essex, .	227	219	.96-47	118	Westminster, .	238	217	.91-17
71	Rockland, .	930	897	.96-45	119	N. Andover, .	714	651	.91-17
72	Arlington, .	1,135	1,092	.96-21	120	W. Newbury, .	249	227	.91-16
73	Manchester, .	287	276	.96-16	121	Hubbardston, .	180	164	.91-11
74	Westboro', .	680	653	.96-02	122	Mashpee, .	56	51	.91-07
75	Brookline, .	2,529	2,425	.95-88	123	Nahant, .	118	107	.90-67
76	Ashland, .	351	336	.95-72	124	Chesterfield, .	85	77	.90-58
77	Stoneham, .	956	915	.95-71	125	Leyden, .	53	48	.90-56
78	Chatham, .	268	256	.95-52	126	Easthampton, .	876	793	.90-52
79	Kingston, .	286	273	.95-45	127	Groton, .	367	332	.90-46
80	Otis, .	65	62	.95-38	128	Royalston, .	125	113	.90-40
81	Tyngsboro', .	81	77	.95-06	129	Longmead'w, .	83	75	.90-36
82	E. Bridgew'r, .	431	409	.94-89	130	Milton, .	1,030	930	.90-29
83	Williamst'wn	678	643	.94-83	131	Windsor, .	70	63	.90-00
84	Chelmsford, .	501	475	.94-81	132	Pepperell, .	587	528	.89-94
85	Wrentham, .	469	444	.94-66	133	Middleboro', .	983	881	.89-62
86	Petersham, .	107	101	.94-39	134	W. Tisbury, .	48	43	.89-58
87	Plymouth, .	1,314	1,240	.94-36	135	Provincet'wn, .	780	698	.89-48
88	Everett, .	3,638	3,432	.94-33	136	Tolland, .	57	51	.89-47
89	Needham, .	617	581	.94-16	137	Worthington, .	123	110	.89-43
90	Conway, .	205	193	.94-14	138	Hopedale, .	242	216	.89-25
91	Hampden, .	85	80	.94-11	139	Avon, .	260	232	.89-23
92	Wilmington, .	238	224	.94-11	140	Uxbridge, .	538	480	.89-21
93	Leominster, .	1,555	1,463	.94-08	141	Hull, .	120	107	.89-16
94	Holbrook, .	418	393	.94-01	142	Lexington, .	543	484	.89-13
95	Falmouth, .	398	374	.93-96	143	Heath, .	100	89	.89-00
96	Blackstone, .	698	655	.93-83	144	Wareham, .	509	453	.88-99
97	Wayland, .	373	350	.93-83	145	Orleans, .	163	145	.88-95
98	Easton, .	841	789	.93-81	146	Rockport, .	768	682	.88-80
99	Charlemont, .	142	133	.93-66	147	Cummington, .	116	103	.88-78
100	Hudson, .	887	830	.93-57	148	Princeton, .	124	110	.88-70
101	Gt. Barringt'n	706	660	.93-48	149	Billerica, .	457	405	.88-62
102	Georgetown, .	322	301	.93-47	150	N. Braintree, .	87	77	.88-50
103	Framingham, .	1,900	1,774	.93-36	151	Brookfield, .	577	510	.88-38
104	Lunenburg, .	179	167	.93-29	152	Gardner, .	1,635	1,445	.88-37
105	Gloucester, .	4,086	3,805	.93-12	153	Leicester, .	558	493	.88-35
106	Stow, .	124	115	.92-74	154	Palmer, .	1,035	913	.88-21
107	Shrewsbury, .	247	229	.92-71	155	Lenox, .	554	488	.88-08
108	W. Stockb'ge, .	230	213	.92-60	156	Chilmark, .	25	22	.88-00
109	Reading, .	794	733	.92-31	157	Carlisle, .	74	65	.87-83
110	Cohasset, .	375	346	.92-26	158	Buckland, .	266	233	.87-59
111	Northbridge, .	1,152	1,060	.92-01	159	Holland, .	24	21	.87-50
112	Harvard, .	148	136	.91-89	160	Sturbridge, .	336	294	.87-50

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
161	Saugus, .	856	747	.87-26	209	Truro, .	159	131	.82-38
162	Sandwich, .	243	212	.87-24	210	Warren, .	912	751	.82-34
163	Millis, .	156	136	.87-17	211	Dartmouth, .	521	427	.81-95
164	Barre, .	334	291	.87-12	212	Northfield, .	222	181	.81-53
165	Freetown, .	178	155	.87-07	213	Sharon, .	222	181	.81-53
166	Winthrop, .	708	616	.87-00	214	Charlton, .	291	237	.81-44
167	Yarmouth, .	223	194	.86-99	215	Marion, .	150	122	.81-33
168	Somerset, .	344	299	.86-91	216	Newton, .	4,861	3,953	.81-32
169	Carver, .	144	125	.86-80	217	Springfield, .	8,307	6,741	.81-14
170	Attleboro', .	1,607	1,391	.86-55	218	Mattapoisett, .	140	126	.81-00
171	Huntington, .	282	244	.86-52	219	Harwich, .	341	276	.80-93
172	Winchendon, .	822	710	.86-37	220	Foxborough, .	518	419	.80-88
173	Walpole, .	499	431	.86-37	221	Stockbridge, .	402	325	.80-84
174	Somerville, .	8,885	7,663	.86-24	222	Wellesley, .	625	505	.80-80
175	W.Bridgew'r, .	261	225	.86-20	223	Millbury, .	913	737	.80-72
176	Montague, .	1,119	964	.86-14	224	Cambridge, .	13716	11068	.80-69
177	Erving, .	202	174	.86-13	225	Washington, .	71	57	.80-28
178	Andover, .	1,015	874	.86-10	226	Hanson, .	206	165	.80-09
179	Goshen, .	57	49	.85-96	227	Dover, .	89	71	.79-77
180	Pembroke, .	192	165	.85-93	228	Fairhaven, .	526	419	.79-65
181	Milford, .	1,459	1,253	.85-88	229	Granville, .	206	164	.79-61
182	Bellingham, .	276	237	.85-86	230	E.L'ngm'dow	323	257	.79-56
183	Holden, .	461	395	.85-68	231	Swansea, .	239	190	.79-49
184	Athol, .	1,050	898	.85-52	232	Berkley, .	146	116	.79-45
185	Edgartown, .	158	135	.85-44	233	Boston, .	78561	62317	.79-32
186	Monroe, .	41	35	.85-36	234	Wales, .	145	115	.79-31
187	Malden, .	5,243	4,473	.85-31	235	Savoy, .	87	69	.79-31
188	Oakham, .	115	98	.85-21	236	Boylston, .	124	98	.79-03
189	Duxbury, .	274	232	.84-67	237	Tisbury, .	138	109	.78-98
190	Westfield, .	1,828	1,544	.84-46	238	New Ashford, .	19	15	.78-94
191	Sunderland, .	90	76	.84-44	239	Tewksbury, .	436	344	.78-89
192	Adams, .	1,893	1,596	.84-31	240	Warwick, .	99	78	.78-78
193	Colrain, .	285	240	.84-21	241	Shutesbury, .	66	52	.78-78
194	Plympton, .	63	53	.84-12	242	Belchertown, .	485	381	.78-55
195	Greenwich, .	75	63	.84-00	243	Westamp'n, .	88	69	.78-40
196	Wellfleet, .	150	126	.84-00	244	Lynnfield, .	134	105	.78-35
197	Eastham, .	68	57	.83-82	245	W.Brookfi'ld, .	240	188	.78-33
198	Beverly, .	1,988	1,666	.83-80	246	Quincy, .	4,702	3,680	.78-26
199	Brookton, .	5,866	4,914	.83-77	247	Norfolk, .	151	118	.78-14
200	Lincoln, .	159	133	.83-64	248	Sandisfield, .	137	107	.78-10
201	Gosnold, .	12	10	.83-33	249	Hadley, .	292	228	.78-08
202	Lynn, .	10334	8,599	.83-21	250	Chester, .	255	199	.78-03
203	Bedford, .	189	157	.83-06	251	Paxton, .	59	46	.77-96
204	Pittsfield, .	3,861	3,206	.83-03	252	Sheffield, .	308	240	.77-92
205	Halifax, .	76	63	.82-89	253	Rowley, .	189	147	.77-77
206	Hinsdale, .	294	243	.82-65	254	New Salem, .	139	108	.77-69
207	Hawley, .	80	66	.82-50	255	Hatfield, .	228	177	.77-63
208	Topsfield, .	131	108	.82-44	256	Worcester, .	18271	14147	.77-42

## SCHOOL RETURNS.

cxxvii

TOWNS.				TOWNS.					
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
257	Revere, .	1,729	1,333	.77-09	306	Florida, .	90	63	.70-00
258	Hamilton, .	209	161	.77-03	307	Southwick, .	195	135	.69-23
259	Townsend, .	320	246	.76-87	308	Egremont, .	120	83	.69-16
260	Acushnet, .	142	109	.76-76	309	Spencer, .	1,626	1,123	.69-06
261	Lancaster, .	353	270	.76-48	310	Ware, .	1,348	928	.68-84
262	Boxford, .	102	.78	.76-47	311	Lakeville, .	132	90	.68-18
263	Methuen, .	1,154	882	.76-42	312	Waltham, .	3,485	2,375	.68-14
264	Russell, .	159	120	.75-47	313	Mt. Wash'ton, .	25	17	.68-00
265	Watertown, .	1,223	921	.75-30	314	Hyde Park, .	2,221	1,508	.67-89
266	Clinton, .	2,149	1,613	.75-05	315	Middleton, .	144	97	.67-36
267	Raynham, .	228	171	.75-00	316	Haverhill, .	4,985	3,347	.67-14
268	Stoughton, .	835	626	.74-97	317	Berlin, .	164	110	.67-07
269	Marlboro', .	3,140	2,348	.74-77	318	Franklin, .	798	533	.66-79
270	Grafton, .	931	695	.74-65	319	Rowe, .	75	50	.66-66
271	Taunton, .	4,857	3,619	.74-51	320	Southampton, .	226	150	.66-37
272	Westport, .	455	339	.74-50	321	Barnardston, .	133	88	.66-16
273	Templeton, .	560	417	.74-46	322	Lee, .	772	508	.65-80
274	Dracut, .	458	341	.74-45	323	Dighton, .	284	185	.65-14
275	Tyringham, .	54	40	.74-07	324	Canton, .	777	502	.64-60
276	Gill, .	138	102	.73-91	325	Ludlow, .	454	293	.64-53
277	Northampt'n, .	2,749	2,031	.73-88	326	Rochester, .	158	101	.63-92
278	Auburn, .	310	229	.73-87	327	Newburyp't, .	2,303	1,456	.63-22
279	Scituate, .	436	322	.73-85	328	Richmond, .	143	90	.62-93
280	Shirley, .	248	183	.73-78	329	Wenham, .	159	100	.62-89
281	Swampscott, .	646	476	.73-68	330	Nantucket, .	450	280	.62-22
282	Wendell, .	104	76	.73-07	331	Burlington, .	82	51	.62-19
283	Newbury, .	234	171	.73-07	332	N. Adams, .	3,558	2,208	.62-05
284	Peabody, .	1,898	1,386	.73-02	333	Chicopee, .	2,666	1,630	.61-14
285	Plainfield, .	85	62	.72-94	334	New Bedford, .	10,055	6,098	.60-64
286	Ipswich, .	868	633	.72-92	335	Alford, .	33	20	.60-60
287	Southboro', .	358	261	.72-90	336	Hardwick, .	508	307	.60-43
288	N.Marlboro', .	214	156	.72-89	337	Pelham, .	91	54	.59-34
289	Rehoboth, .	310	225	.72-58	338	Amesbury, .	1,642	963	.58-64
290	Chelsea, .	5,634	4,087	.72-54	339	Deerfield, .	373	218	.58-44
291	Wilbraham, .	260	187	.71-92	340	Lawrence, .	9,635	5,630	.58-43
292	Fitchburg, .	5,127	3,677	.71-71	341	Dudley, .	560	327	.58-39
293	Norton, .	240	172	.71-66	342	Salem, .	6,051	3,473	.57-39
294	Brewster, .	158	113	.71-51	343	Lowell, .	16,390	9,182	.56-02
295	Hancock, .	98	70	.71-42	344	Lanesboro', .	180	100	.55-55
296	Woburn, .	3,135	2,239	.71-41	345	Fall River, .	18,801	10,374	.55-17
297	Agawam, .	489	349	.71-37	346	Seekonk, .	281	155	.55-16
298	Phillipston, .	73	52	.71-23	347	Sutton, .	692	378	.54-62
299	Leverett, .	132	94	.71-21	348	N.Brookfield, .	933	496	.53-16
300	Montgomery, .	52	37	.71-15	349	Peru, .	70	37	.52-85
301	Brimfield, .	135	96	.71-11	350	Clarksburg, .	237	121	.51-05
302	Becket, .	172	122	.70-93	351	Southbridge, .	1,651	803	.48-63
303	Salisbury, .	238	168	.70-58	352	Holyoke, .	8,795	3,983	.45-28
304	Douglas, .	438	309	.70-54	353	Webster, .	1,421	560	.39-40
305	Whately, .	108	76	.70-37					

## GRADUATED TABLES — THIRD SERIES.

[COUNTY TABLES.]

*In which all the Towns in the respective Counties in the State are numerically arranged according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1896-97.*

[For an explanation of the principles on which the Tables are constructed, see *ante*, p. cxxiii.]

## BARNSTABLE COUNTY.

TOWNS.				TOWNS.					
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.		
			Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
1	DENNIS, .	362	380	1.04-97	9	Sandwich, .	243	212	.87-24
2	Bourne, .	267	275	1.02-99	10	Yarmouth, .	223	194	.86-99
3	Barnstable, .	628	629	1.00-15	11	Wellfleet, .	150	126	.84-00
4	Chatham, .	268	256	.95-52	12	Eastham, .	68	57	.83-82
5	Falmouth, .	398	374	.93-96	13	Truro, .	159	131	.82-38
6	Mashpee, .	56	51	.91-07	14	Harwich, .	341	276	.80-93
7	Provincetown, .	780	698	.89-48	15	Brewster, .	158	113	.71-51
8	Orleans, .	163	145	.88-95					

## BERKSHIRE COUNTY.

1	MONTEREY, .	72	71	.98-61	17	Sandisfield, .	137	107	.78-10
2	Dalton, .	574	562	.97-90	18	Sheffield, .	308	240	.77-92
3	Otis, .	65	62	.95-38	19	Tyringham, .	54	40	.74-07
4	Williamstown, .	678	643	.94-83	20	N. Marlboro', .	214	156	.72-89
5	Gt. Barringt'n, .	706	660	.93-48	21	Hancock, .	98	70	.71-42
6	W. Stockb'dge, .	230	213	.92-60	22	Becket, .	172	122	.70-93
7	Cheshire, .	178	163	.91-57	23	Florida, .	90	63	.70-00
8	Windsor, .	70	63	.90-00	24	Egremont, .	120	83	.69-16
9	Lenox, .	554	488	.88-08	25	Mt. Wash'gton	25	17	.68-00
10	Adams, .	1,893	1,596	.84-31	26	Lee, .	772	508	.65-80
11	Pittsfield, .	3,861	3,206	.83-03	27	Richmond, .	143	90	.62-93
12	Hinsdale, .	294	243	.82-65	28	N. Adams, .	3,558	2,208	.62-05
13	Stockbridge, .	402	325	.80-84	29	Alford, .	33	20	.60-60
14	Washington, .	71	57	.80-28	30	Lanesboro', .	180	100	.55-55
15	Savoy, .	87	69	.79-31	31	Peru, .	70	37	.52-85
16	New Ashford, .	19	15	.78-94	32	Clarksburg, .	237	121	.51-05



## SCHOOL RETURNS.

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## BRISTOL COUNTY.

TOWNS.				TOWNS.			
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1 N. ATTLEBOROUGH,	1,219	1,203	.98-68	11 Acushnet,	142	109	.76-76
2 Easton, .	841	789	.93-81	12 Raynham, .	228	171	.75-00
3 Mansfield, .	670	611	.91-19	13 Taunton, .	4,857	3,619	.74-51
4 Freetown, .	178	155	.87-07	14 Westport, .	455	339	.74-50
5 Somerset, .	344	299	.86-91	15 Rehoboth, .	310	225	.72-58
6 Attleborough,	1,607	1,391	.86-55	16 Norton, .	240	172	.71-66
7 Dartmouth, .	521	427	.81-95	17 Dighton, .	284	185	.65-14
8 Fairhaven, .	526	419	.79-65	18 New Bedford,	10,055	6,098	.60-64
9 Swansea, .	239	190	.79-49	19 Fall River, .	18,801	10,374	.55-17
10 Berkley, .	146	116	.79-45	20 Seekonk, .	281	155	.55-16

## DUKES COUNTY.

1 COTTAGE CITY, .	135	160	1.18-51	5 Edgartown, .	158	135	.85-44
2 Gay Head, .	32	32	1.00-00	6 Gosnold, .	12	10	.83-33
3 W. Tisbury, .	48	43	.89-58	7 Tisbury, .	138	109	.78-98
4 Chilmark, .	25	22	.88-00				

## ESSEX COUNTY.

1 MARBLEHEAD, .	1,019	1,115	1.09-42	19 Lynnfield, .	134	105	.78-35
2 Bradford, .	808	816	1.00-99	20 Rowley, .	189	147	.77-77
3 Merrimac, .	361	363	1.00-55	21 Hamilton, .	209	161	.77-03
4 Groveland, .	398	395	.99-24	22 Boxford, .	102	78	.76-47
5 Danvers, .	1,268	1,225	.96-60	23 Methuen, .	1,154	882	.76-42
6 Essex, .	227	219	.96-47	24 Swampscott, .	646	476	.73-68
7 Manchester, .	287	276	.96-16	25 Newbury, .	234	171	.73-07
8 Georgetown, .	322	301	.93-47	26 Peabody, .	1,898	1,386	.73-02
9 Gloucester, .	4,086	3,805	.93-12	27 Ipswich, .	868	633	.72-92
10 N. Andover, .	714	651	.91-17	28 Salisbury, .	238	168	.70-58
11 W. Newbury, .	249	227	.91-16	29 Middleton, .	144	97	.67-36
12 Nahant, .	118	107	.90-67	30 Haverhill, .	4,985	3,347	.67-14
13 Rockport, .	768	682	.88-80	31 Newburypt, .	2,303	1,456	.63-22
14 Saugus, .	856	747	.87-26	32 Wenham, .	159	100	.62-89
15 Andover, .	1,015	874	.86-10	33 Amesbury, .	1,642	963	.58-64
16 Beverly, .	1,988	1,666	.83-80	34 Lawrence, .	9,635	5,630	.58-43
17 Lynn, .	10,334	8,599	.83-21	35 Salem, .	6,051	3,473	.57-39
18 Topsfield, .	131	108	.82-44				

## BOARD OF EDUCATION.

## FRANKLIN COUNTY.

TOWNS.				TOWNS.			
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.
1	SHELBERNE, .	195	249	1.27-68	14	Colrain, .	285
2	Ashfield, .	111	134	1.20-72	15	Hawley, .	80
3	Orange, .	922	956	1.03-67	16	Northfield, .	222
4	Greenfield, .	1,159	1,177	1.01-55	17	Warwick, .	99
5	Conway, .	205	193	.94-14	18	Shutesbury, .	66
6	Charlemont, .	142	133	.93-66	19	New Salem, .	139
7	Leyden, .	53	48	.90-56	20	Gill, .	138
8	Heath, .	100	89	.89-00	21	Wendell, .	104
9	Buckland, .	266	233	.87-59	22	Leverett, .	132
10	Montague, .	1,119	964	.86-14	23	Whately, .	108
11	Erving, .	202	174	.86-13	24	Rowe, .	75
12	Monroe, .	41	35	.85-36	25	Bernardston, .	133
13	Sunderland, .	90	76	.84-44	26	Deerfield, .	373
							218
							.58-44

## HAMPDEN COUNTY.

1	BLANDFORD, .	116	127	1.09-48	13	Wales, .	145	115	.79-31
2	W Springfield, .	1,180	1,182	1.00-16	14	Chester, .	255	199	.78-03
3	Hampden, .	85	80	.94-11	15	Russell, .	159	120	.75-47
4	Monson, .	594	542	.91-24	16	Wilbraham, .	260	187	.71-92
5	Longmeadow, .	83	75	.90-36	17	Agawam, .	489	349	.71-37
6	Tolland, .	57	51	.89-47	18	Montgomery, .	52	37	.71-15
7	Palmer, .	1,035	913	.88-21	19	Brimfield, .	135	96	.71-11
8	Holland, .	24	21	.87-50	20	Sonthevic, .	195	135	.69-23
9	Westfield, .	1,828	1,544	.84-46	21	Ludlow, .	454	293	.64-53
10	Springfield, .	8,307	6,741	.81-14	22	Chicopee, .	2,666	1,630	.61-14
11	Granville, .	206	164	.79-61	23	Holyoke, .	8,795	3,983	.45-28
12	E. Longm'd'w, .	323	257	.79-56					

## HAMPSHIRE COUNTY.

1	MIDDLEFIELD, .	68	80	1.17-64	13	Goshen, .	57	49	.85-96
2	Williamsburg, .	314	362	1.15-28	14	Greenwich, .	75	63	.84-00
3	Enfield, .	170	182	1.07-05	15	Belchertown, .	485	381	.78-55
4	Prescott, .	50	53	1.06-00	16	Westhampt'n, .	88	69	.78-40
5	Amherst, .	627	628	1.00-15	17	Hadley, .	292	228	.78-08
6	Granby, .	117	117	1.00-00	18	Hatfield, .	228	177	.77-63
7	South Hadley, .	773	747	.96-63	19	Northampton, .	2,749	2,031	.73-88
8	Chesterfield, .	85	77	.90-58	20	Plainfield, .	85	62	.72-94
9	Easthampton, .	876	793	.90-52	21	Ware, .	1,348	928	.68-84
10	Worthington, .	123	110	.89-43	22	Southampton, .	226	150	.66-37
11	Cumington, .	116	103	.88-78	23	Pelham, .	91	54	.59-34
12	Huntington, .	282	244	.86-52					

## SCHOOL RETURNS.

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## MIDDLESEX COUNTY.

TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1 SHERBORN, .	108	136	1.25-92	28 Wayland, .	373	350	.93-83
2 Weston, .	195	216	1.10-76	29 Hudson, .	887	830	.93-57
3 Winchester, .	1,051	1,120	1.06-56	30 Framingham, .	1,900	1,774	.93-36
4 Boxborough, .	53	56	1.05-66	31 Stow, .	124	115	.92-74
5 Hopkinton, .	460	485	1.05-43	32 Reading, .	794	733	.92-31
6 Concord, .	683	717	1.04-97	33 N. Reading, .	132	121	.91-66
7 Holliston, .	398	416	1.04-52	34 Groton, .	367	332	.90-46
8 Westford, .	382	398	1.04-18	35 Pepperell, .	587	528	.89-94
9 Littleton, .	168	175	1.04-16	36 Lexington, .	543	484	.89-13
10 Ayer, .	371	385	1.03-77	37 Billerica, .	467	405	.88-62
11 Natick, .	1,513	1,563	1.03-30	38 Carlisle, .	74	65	.87-83
12 Dunstable, .	50	51	1.02-00	39 Somerville, .	8,885	7,663	.86-24
13 Acton, .	245	249	1.01-63	40 Malden, .	5,243	4,473	.85-31
14 Sudbury, .	165	164	.99-39	41 Lincoln, .	159	133	.83-64
15 Wakefield, .	1,501	1,481	.98-66	42 Bedford, .	189	157	.83-06
16 Melrose, .	2,030	1,999	.98-47	43 Newton, .	4,861	3,953	.81-32
17 Medford, .	2,524	2,455	.97-26	44 Cambridge, .	13716	11068	.80-69
18 Maynard, .	547	530	.96-89	45 Tewksbury, .	436	344	.78-89
19 Ashby, .	122	118	.96-72	46 Townsend, .	320	246	.76-87
20 Belmont, .	438	423	.96-57	47 Watertown, .	1,223	921	.75-30
21 Arlington, .	1,135	1,092	.96-21	48 Marlborough, .	3,140	2,348	.74-77
22 Ashland, .	351	336	.95-72	49 Dracut, .	458	341	.74-45
23 Stoneham, .	956	915	.95-71	50 Shirley, .	248	183	.73-78
24 Tyngsboro', .	81	77	.95-06	51 Woburn, .	3,135	2,239	.71-41
25 Chelmsford, .	501	475	.94-81	52 Waltham, .	3,485	2,375	.68-14
26 Everett, .	3,638	3,432	.94-33	53 Burlington, .	82	51	.62-19
27 Wilmington, .	238	224	.94-11	54 Lowell, .	16390	9,182	.56-02

## NANTUCKET COUNTY.

NANTUCKET, . . . . .	450	280	.62-22
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## NORFOLK COUNTY.

1 BRAINTREE, .	849	890	1.04-82	8 Brookline, .	2,529	2,425	.95-88
2 Norwood, .	841	869	1.03-32	9 Wrentham, .	469	444	.94-66
3 Medway, .	463	475	1.02-59	10 Needham, .	617	581	.94-16
4 Randolph, .	585	594	1.01-53	11 Holbrook, .	418	393	.94-01
5 Medfield, .	230	229	.99-56	12 Cohasset, .	375	346	.92-26
6 Weymouth, .	1,874	1,855	.98-98	13 Milton, .	1,030	930	.90-29
7 Dedham, .	1,260	1,221	.96-90	14 Avon, .	260	232	.89-23

## NORFOLK COUNTY — CONCLUDED.

TOWNS.				TOWNS.					
		No of children between 5 and 15 years of age in each town.	Average attendance upon School.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.		
			Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
15	Millis, . .	156	136	.87-17	22	Quincy, . .	4,702	3,680	.78-26
16	Walpole, . .	499	431	.86-37	23	Norfolk, . .	151	118	.78-14
17	Bellingham, .	276	237	.85-86	24	Stoughton, .	835	626	.74-97
18	Sharon, . .	222	181	.81-53	25	Hyde Park, .	2,221	1,508	.67-89
19	Foxborough, .	518	419	.80-88	26	Franklin, . .	798	533	.66-79
20	Wellesley, . .	625	505	.80-80	27	Canton, . .	777	502	.64-60
21	Dover, . .	89	71	.79-77					

## PLYMOUTH COUNTY.

1	MARSHFIELD, . .	202	230	1.13-86	15	Carver, . .	144	125	.86-80
2	Hanover, . .	302	339	1.12-25	16	W.Bridgew'r, .	261	225	.86-20
3	Bridgewater, .	534	556	1.04-11	17	Pembroke, . .	192	165	.85-93
4	Whitman, . .	865	898	1.03-81	18	Duxbury, . .	274	232	.84-67
5	Norwell, . .	233	239	1.02-57	19	Plympton, . .	63	53	.84-12
6	Hingham, . .	653	640	.98-00	20	Brockton, . .	5,866	4,914	.83-77
7	Abington, . .	660	637	.96-51	21	Halifax, . .	76	63	.82-89
8	Rockland, . .	930	897	.96-45	22	Marion, . .	150	122	.81-33
9	Kingston, . .	286	273	.95-45	23	Mattapoisett, .	140	126	.81-00
10	E.Bridgew't'r, .	431	409	.94-89	24	Hanson, . .	206	165	.80-09
11	Plymouth, . .	1,314	1,240	.94-36	25	Scituate, . .	436	322	.73-85
12	Middleboro', .	983	881	.89-62	26	Lakeville, . .	132	90	.68-18
13	Hull, . .	120	107	.89-16	27	Rochester, . .	158	101	.63-92
14	Wareham, . .	509	453	.88-99					

## SUFFOLK COUNTY.

1	WINTHROP, . .	708	616	.87-00	3	Revere, . .	1,729	1,333	.77-09
2	Boston, . .	78,561	62,317	.79-32	4	Chelsea, . .	5,634	4,087	.72-54

## WORCESTER COUNTY.

1	RUTLAND, . .	170	182	1.07-05	7	Dana, . .	86	85	.98-83
2	Upton, . .	238	250	1.05-04	8	Ashburnham, .	374	363	.97-05
3	Sterling, . .	165	170	1.03-03	9	Mendon, . .	134	130	.97-01
4	Bolton, . .	109	112	1.02-75	10	Westborough, .	680	653	.96-02
5	Northboro', .	323	326	1.00-92	11	Petersham, . .	107	101	.94-39
6	W. Boylston, .	468	471	1.00-64	12	Leominster, . .	1,555	1,463	.94-08

## SCHOOL RETURNS.

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## WORCESTER COUNTY — CONCLUDED.

TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
13 Blackstone, .	698	655	.93-83	37 Charlton, .	291	237	.81-44
14 Lunenburg, .	179	167	.93-29	38 Millbury, .	913	737	.80-72
15 Shrewsbury, .	247	229	.92-71	39 Boylston, .	124	98	.79-03
16 Northbridge, .	1,152	1,060	.92-01	40 W. Brookfield, .	240	188	.78-33
17 Harvard, .	148	136	.91-89	41 Paxton, .	59	46	.77-96
18 Oxford, .	402	368	.91-54	42 Worcester, .	18271	14147	.77-42
19 Westminster, .	238	217	.91-17	43 Lancaster, .	353	270	.76-48
20 Hubbardston, .	180	164	.91-11	44 Clinton, .	2,149	1,613	.75-05
21 Royalston, .	125	113	.90-40	45 Grafton, .	931	695	.74-65
22 Hopedale, .	242	216	.89-25	46 Templeton, .	560	417	.74-46
23 Uxbridge, .	538	480	.89-21	47 Auburn, .	310	229	.73-87
24 Princeton, .	124	110	.88-70	48 Southboro', .	358	261	.72-90
25 N. Braintree, .	87	77	.88-50	49 Fitchburg, .	5,127	3,677	.71-71
26 Brookfield, .	577	510	.88-38	50 Phillipston, .	73	52	.71-23
27 Gardner, .	1,635	1,445	.88-37	51 Douglas, .	438	309	.70-54
28 Leicester, .	558	493	.88-35	52 Spencer, .	1,626	1,123	.69-06
29 Sturbridge, .	336	294	.87-50	53 Berlin, .	164	110	.67-07
30 Barre, .	334	291	.87-12	54 Hardwick, .	508	307	.60-43
31 Winchendon, .	822	710	.86-37	55 Dudley, .	560	327	.58-39
32 Milford, .	1,459	1,253	.85-88	56 Sutton, .	692	378	.54-62
33 Holden, .	461	395	.85-68	57 N. Brookfield, .	933	496	.53-16
34 Athol, .	1,050	898	.85-52	58 Southbridge, .	1,651	803	.48-63
35 Oakham, .	115	98	.85-21	59 Webster, .	1,421	560	.39-40
36 Warren, .	912	751	.82-34				

*Table in which all the Counties are numerically arranged, according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1896-97.*

For 1895-96.	For 1896-97.	COUNTIES.	Ratio of attendance.
6	1	Dukes, . . . . .	.93-24
3	2	Barnstable, . . . . .	.91-86
2	3	Plymouth, . . . . .	.89-96
1	4	Franklin, . . . . .	.89-80
4	5	Norfolk, . . . . .	.86-31
7	6	Hampshire, . . . . .	.82-12
5	7	Middlesex, . . . . .	.80-68
8	8	Suffolk, . . . . .	.78-90
9	9	Berkshire, . . . . .	.77-78
10	10	Worcester, . . . . .	.77-61
11	11	Essex, . . . . .	.74-62
12	12	Hampden, . . . . .	.68-65
13	13	Bristol, . . . . .	.64-48
14	14	Nantucket, . . . . .	.62-22
STATE, . . . . .			.77-64

## GRADUATED TABLES—FOURTH SERIES.

The following Table was made out for the first time in the fifty-ninth report. In the First Series of Graduated Tables, which is required to meet the purposes of section 5, chapter 43 of the Public Statutes, the sums appropriated by towns for each child between five and fifteen years of age are given in a comparative way, and the towns are classified according to such amounts. The facts presented in this First Series have been freely used by some towns as a lever for increasing their appropriations; by other towns, as a lever for reducing them. Inasmuch as in some towns and cities large numbers of children between five and fifteen are in private schools; inasmuch, also, as the proportions of those children between five and fifteen years of age who attend the public schools vary considerably, the children entering later and leaving earlier in some towns than in others, it follows that the division of the amount appropriated for the public schools by the number of all the children between five and fifteen, without reference to whether they are in the public schools or not, may yield results that cannot be fairly used for purposes of comparison, unless it is known from other sources that the conditions of public school attendance are the same.

Now the money appropriated for the public schools is expended upon those persons who attend them, whether they are within or without the limits of five and fifteen. It is determined more by the average membership than by any other factor. Consequently this Fourth Series is valuable for making known in a comparative way just how the towns stand in what they spend upon each person actually in attendance upon the public schools. It is not necessary to repeat in the Fourth Series the amounts raised by taxes for the support of public schools since they are the same as in the First Series.

## GRADUATED TABLES—FOURTH SERIES.

[FOR THE STATE.]

*A Graduated Table in which all the Towns in the State are numerically arranged according to the Comparative Amounts of Money appropriated by them for the Education of Each Child included in the Average Membership of the Public Schools.*

For 1896-97.	TOWNS.	Average mem- bership of the Public Schools.	Sum appropri- ated for each child.	For 1896-97.	TOWNS.	Average mem- bership of the Public Schools.	Sum appropri- ated for each child.
1	HULL, . . .	114	\$61 53.5	35	Concord, . .	771	23 62.9
2	Tyngsborough, .	83	42 48.2	36	Yarmouth, . .	208	23 60.1
3	Weston, . . .	231	42 44.0	37	Wellfleet, . .	137	23 58.0
4	Brookline, . .	2,635	39 18.4	38	Hardwick, . .	325	23 56.7
5	Nahant, . . .	114	38 65.1	39	Worcester, . .	15,287	23 54.1
6	Milton, . . .	1,015	37 54.8	40	Cambridge, . .	11,957	23 50.8
7	Newton, . . .	4,283	31 82.1	41	Fitchburg, . .	3,877	23 29.6
8	Wellesley, . .	559	30 96.3	42	Haverhill, . .	3,579	23 28.4
9	Cohasset, . .	388	30 44.2	43	Hopedale, . .	227	23 01.5
10	Burlington, . .	56	30 10.4	44	Longmeadow, .	87	22 98.8
11	Falmouth, . .	411	29 74.3	45	Winthrop, . .	659	22 93.6
12	Sudbury, . . .	179	29 73.6	46	No. Reading, .	131	22 85.4
13	Lexington, . .	522	28 80.2	47	Hingham, . . .	698	22 85.2
14	Lancaster, . .	284	28 18.7	48	Arlington, . .	1,176	22 83.4
15	Petersham, . .	107	27 49.7	49	Manchester, . .	293	22 82.4
16	Boston, . . .	70,192	27 35.0	50	Somerville, . .	8,077	22 61.2
17	Watertown, . .	990	26 95.9	51	Mattapoisett, .	138	22 59.1
18	Lincoln, . . .	150	26 94.7	52	Malden, . . .	4,715	22 54.0
19	Canton, . . .	531	26 91.9	53	Groton, . . . .	366	22 21.8
20	Waltham, . . .	2,536	26 90.6	54	Hyde Park, . .	1,614	22 19.7
21	Sherborn, . . .	144	26 55.8	55	Swampscott, . .	526	21 71.9
22	Littleton, . .	186	25 92.3	56	Taunton, . . .	3,821	21 71.0
23	Dover, . . . .	83	25 69.6	57	New Bedford, .	6,525	21 54.7
24	Springfield, .	7,267	25 48.0	58	Stockbridge, . .	345	21 44.1
25	Belmont, . . .	446	25 20.2	59	Sterling, . . .	187	21 39.1
26	Dedham, . . .	1,320	25 20.2	60	Walpole, . . .	476	21 33.8
27	Holyoke, . . .	4,400	24 59.6	61	Wayland, . . .	384	21 22.6
28	Deerfield, . .	248	24 19.3	62	Dracut, . . . .	376	21 21.4
29	Dunstable, . .	55	24 19.0	63	N. Brantree, . .	81	21 18.5
30	Salem, . . . .	3,831	24 08.8	64	Barnstable, . .	677	21 14.7
31	Sunderland, . .	80	24 06.2	65	Harvard, . . .	150	21 08.6
32	Lowell, . . . .	10,041	23 99.0	66	Lawrence, . . .	5,889	20 98.5
33	Topsfield, . .	116	23 85.7	67	Abington, . . .	679	20 95.4
34	Medford, . . .	2,651	23 67.0	68	Sandwich, . . .	229	20 84.3



## SCHOOL RETURNS.

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For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
69	Orleans, . . .	159	\$20 76.2	120	Millis, . . .	151	\$18 38.5
70	Bedford, . . .	173	20 75.2	121	W. Springfield, . . .	1,269	18 31.5
71	Ware, . . .	978	20 75.1	122	Middleboro', . . .	948	18 30.3
72	Easton, . . .	842	20 67.2	123	Woburn, . . .	2,438	18 27.3
73	Bridgewater, . . .	599	20 62.4	124	Holbrook, . . .	424	18 27.1
74	Southborough, . . .	290	20 55.7	125	Uxbridge, . . .	520	18 25.5
75	Lynn, . . .	9,184	20 29.6	126	North Adams, . . .	2,385	18 21.0
76	Westfield, . . .	1,620	20 27.4	127	Halifax, . . .	66	18 18.1
77	Merrimac, . . .	382	20 22.0	128	Bradford, . . .	859	18 12.1
78	Brewster, . . .	128	20 06.6	129	Athol, . . .	936	18 11.1
79	Fall River, . . .	11,371	20 00.4	130	Shrewsbury, . . .	248	18 04.4
80	Northampton, . . .	2,140	20 00.0	131	Stoncham, . . .	962	17 98.3
81	Mashpee, . . .	56	19 94.9	132	Norfolk, . . .	143	17 89.6
82	Barre, . . .	312	19 88.1	133	Nantucket, . . .	300	17 88.1
83	Winchester, . . .	1,289	19 77.9	134	Leicester, . . .	529	17 86.7
84	Webster, . . .	588	19 74.2	135	Warren, . . .	805	17 81.5
85	Holliston, . . .	438	19 70.2	136	Palmer, . . .	981	17 78.8
86	Swansea, . . .	209	19 67.9	137	No. Brookfield, . . .	527	17 71.4
87	Melrose, . . .	2,154	19 58.9	138	Medfield, . . .	247	17 70.0
88	Pepperell, . . .	570	19 54.3	139	Needham, . . .	632	17 69.2
89	Quincy, . . .	3,788	19 53.4	140	Dudley, . . .	344	17 60.1
90	Plymouth, . . .	1,322	19 48.4	141	Monson, . . .	581	17 39.5
91	Dalton, . . .	593	19 39.2	142	Revere, . . .	1,413	17 39.4
92	Phillipston, . . .	57	19 29.8	143	Upton, . . .	267	17 37.7
93	Franklin, . . .	586	19 22.0	144	Brimfield, . . .	108	17 35.5
94	Spencer, . . .	1,180	19 19.4	145	Hudson, . . .	872	17 25.1
95	Foxborough, . . .	459	19 16.7	146	Tewksbury, . . .	374	17 22.6
96	Dighton, . . .	214	19 15.8	147	No. Attleboro', . . .	1,296	17 19.1
97	Peabody, . . .	1,526	19 14.6	148	Everett, . . .	3,608	17 18.4
98	Grafton, . . .	772	19 13.8	149	Rockland, . . .	966	17 06.4
99	Brockton, . . .	5,352	19 08.7	150	Hubbardston, . . .	178	17 05.0
100	Barnardston, . . .	95	19 08.2	151	Ludlow, . . .	324	16 97.4
101	Weymouth, . . .	1,974	19 07.5	152	Gt. Barrington, . . .	768	16 95.2
102	Frammingham, . . .	1,884	19 07.2	153	Acushnet, . . .	127	16 91.6
103	Townsend, . . .	264	18 93.9	154	Raynham, . . .	191	16 90.1
104	Acton, . . .	262	18 92.1	155	Natick, . . .	1,650	16 89.7
105	Tisbury, . . .	120	18 88.3	156	Westborough, . . .	706	16 81.6
106	Wrentham, . . .	482	18 87.1	157	Braintree, . . .	967	16 81.0
107	Reading, . . .	782	18 76.2	158	Oxford, . . .	396	16 80.3
108	E. Bridgewater, . . .	435	18 68.8	159	Duxbury, . . .	254	16 78.9
109	Amherst, . . .	673	18 63.9	160	Mansfield, . . .	660	16 77.7
110	Sharon, . . .	202	18 57.9	161	Leominster, . . .	1,545	16 76.4
111	Kingston, . . .	291	18 53.1	162	Lunenburg, . . .	178	16 76.5
112	No. Andover, . . .	700	18 46.8	163	Montague, . . .	1,017	16 70.1
113	Chelsea, . . .	4,456	18 46.3	164	Holden, . . .	429	16 67.8
114	Bourne, . . .	295	18 45.2	165	W. Brookfield, . . .	200	16 67.5
115	Andover, . . .	931	18 44.4	166	Methuen, . . .	955	16 66.4
116	Georgetown, . . .	317	18 43.7	167	Westford, . . .	428	16 58.8
117	Hopkinton, . . .	512	18 43.3	168	Easthampton, . . .	840	16 56.9
118	Whitman, . . .	947	18 40.7	169	Marshfield, . . .	248	16 55.7
119	Boxford, . . .	87	18 39.0	170	Southbridge, . . .	861	16 47.7

For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
171	Gill, . . .	111	\$16 47.2	222	Maynard, . .	559	\$15 40.5
172	Norwood, . .	922	16 45.3	223	Chicopee, . .	1,746	15 39.9
173	Dennis, . . .	404	16 41.5	224	Boylston, . .	108	15 27.7
174	Pittsfield, . .	3,472	16 37.5	225	Orange, . . .	994	15 25.3
175	Clinton, . . .	1,704	16 32.3	226	W Bridgew'tr,	247	15 25.1
176	Beverly, . . .	1,848	16 30.2	227	Avon, . . . .	262	15 25.1
177	Harwich, . . .	307	16 28.6	228	Williamstown,	700	15 24.0
178	Billerica, . .	436	16 28.4	229	Plympton, . .	58	15 23.0
179	Wilbraham, . .	204	16 26.4	230	Rehoboth, . .	258	15 13.3
180	Ashfield, . . .	143	16 22.6	231	Douglas, . . .	341	15 09.6
181	Lee, . . . . .	550	16 22.0	232	Chatham, . . .	289	15 01.4
182	Bellingham, . .	253	16 21.3	233	Wilmington, .	212	14 98.0
183	Greenfield, . .	1,256	16 20.8	234	Chelmsford, . .	513	14 97.0
184	W. Boylston, . .	506	16 20.5	235	Sturbridge, . .	308	14 95.4
185	Marblehead, . .	1,209	16 19.7	236	Montgomery, .	43	14 89.9
186	Randolph, . . .	637	16 16.5	237	Norwell, . . .	262	14 88.9
187	Scituate, . . .	354	16 14.9	238	South Hadley, .	789	14 86.7
188	Fairhaven, . . .	473	16 10.4	239	Rowe, . . . .	58	14 86.0
189	Saugus, . . . .	811	16 09.6	240	Pelham, . . . .	65	14 85.1
190	Shelburne, . . .	265	16 07.8	241	Freetown, . . .	186	14 83.4
191	Amesbury, . . .	1,054	16 07.2	242	Agawam, . . .	382	14 82.5
192	Marion, . . . .	133	16 05.5	243	W. Tisbury, . .	49	14 79.5
193	Newburyport, .	1,573	16 02.2	244	Ipswich, . . . .	697	14 77.1
194	Northfield, . .	200	16 01.6	245	Richmond, . . .	104	14 71.7
195	Lenox, . . . .	509	16 00.1	246	Hatfield, . . .	197	14 68.9
196	Wakefield, . . .	1,606	15 99.0	247	Westminster, .	236	14 67.5
197	Chilmark, . . .	23	15 98.6	248	Lanesborough, .	123	14 63.4
198	Blackstone, . .	700	15 97.7	249	Brookfield, . .	548	14 62.8
199	Norton, . . . .	196	15 96.3	250	Wenham, . . . .	108	14 57.5
200	Stoughton, . . .	674	15 95.7	251	Templeton, . .	445	14 52.0
201	Attleborough, .	1,521	15 93.9	252	Dartmouth, . .	475	14 50.5
202	Cheshire, . . .	176	15 90.9	253	Princeton, . . .	119	14 46.5
203	Medway, . . . .	503	15 90.4	254	W. Newbury, . .	249	14 46.1
204	Mendon, . . . .	139	15 89.3	255	Granby, . . . .	125	14 40.0
205	Whately, . . . .	82	15 85.3	256	Eastham, . . .	63	14 28.5
206	Ashby, . . . .	126	15 85.0	257	Carlisle, . . .	70	14 28.5
207	Milford, . . . .	1,320	15 84.9	258	Adams, . . . .	1,699	14 27.2
208	Wareham, . . .	500	15 84.6	259	Sheffield, . . .	275	14 26.1
209	Gloucester, . .	3,929	15 82.3	260	Florida, . . . .	73	14 18.1
210	Marlborough, . .	2,519	15 81.4	261	Essex, . . . .	247	14 17.0
211	Lynnfield, . . .	125	15 75.9	262	Auburn, . . . .	256	14 13.3
212	Hanover, . . . .	374	15 71.2	263	Provincetown, .	745	14 09.3
213	Gardner, . . . .	1,560	15 56.6	264	Northborough, .	355	14 08.4
214	Danvers, . . . .	1,369	15 56.0	265	Charlton, . . .	277	14 06.4
215	Conway, . . . .	206	15 53.3	266	Rowley, . . . .	164	14 03.4
216	Hampden, . . . .	84	15 47.6	267	Paxton, . . . .	56	13 94.6
217	W. Stockbridge, .	236	15 46.6	268	Cummington, .	108	13 87.5
218	Ashland, . . . .	356	15 44.9	269	Hamilton, . . .	181	13 85.6
219	Northbridge, . .	1,118	15 44.0	270	Boxborough, . .	58	13 79.3
220	Blandford, . . .	141	15 43.9	271	Cottage City, .	182	13 71.4
221	Middleton, . . .	111	15 41.1	272	Monroe, . . . .	38	13 52.3

## SCHOOL RETURNS.

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For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
273	Stow, . . .	124	\$13 52.0	314	Buckland, . .	248	\$11 73.9
274	Newbury, . .	237	13 47.9	315	Rutland, . .	185	11 58.3
275	New Salem, .	118	13 47.3	316	Windsor, . .	69	11 48.2
276	Bolton, . . .	122	13 47.2	317	Chesterfield, .	84	11 38.9
277	Oakham, . . .	102	13 44.8	318	Holland, . . .	22	11 17.0
278	Hanson, . . .	180	13 44.4	319	Colrain, . . .	260	11 07.3
279	E. Longm'dow,	287	13 39.4	320	Hawley, . . .	70	11 06.0
280	Lakeville, . .	112	13 39.2	321	Charlemont, .	143	11 03.2
281	Sutton, . . .	428	13 38.2	322	Greenwich, . .	68	11 02.9
282	Millbury, . .	779	13 37.5	323	Rockport, . .	714	10 92.3
283	Somerset, . .	935	13 34.1	324	Westhampton,	83	10 84.3
284	Pembroke, . .	180	13 29.4	325	Royalston, . .	122	10 82.4
285	Ayer, . . . .	408	13 29.2	326	Williamsburg,	387	10 71.7
286	Groveland, . .	419	13 22.1	327	Berlin, . . . .	121	10 55.1
287	Westport, . .	380	13 15.7	328	New Ashford, .	19	10 52.6
288	Hinsdale, . .	266	13 15.7	329	Monterey, . .	81	10 38.1
289	Hadley, . . .	251	13 14.7	330	Dana, . . . . .	87	10 34.4
290	Tyringham, . .	48	13 08.7	331	Otis, . . . . .	72	10 33.5
291	Prescott, . .	58	13 04.6	332	Becket, . . . .	135	10 26.3
292	Seekonk, . . .	181	12 83.4	333	Heath, . . . . .	93	10 16.8
293	Salisbury, . .	195	12 80.7	334	N.Marlb'oro', .	185	10 05.2
294	Enfield, . . .	196	12 75.5	335	Worthington, .	125	9 95.4
295	Wales, . . . .	126	12 73.7	336	Clarksburg, . .	136	9 92.9
296	Carver, . . . .	147	12 59.5	337	Rochester, . .	122	9 88.6
297	Edgartown, . .	143	12 55.9	338	Middlefield, . .	84	9 59.5
298	Peru, . . . . .	42	12 54.7	339	Huntington, . .	269	9 57.2
299	Granville, . .	176	12 51.3	340	Sandisfield, . .	125	9 53.5
300	Alford, . . . .	24	12 50.0	341	Southampton, .	171	9 28.1
301	Shirley, . . . .	203	12 45.5	342	Wendell, . . . .	80	9 20.2
302	Ashburnham, .	391	12 40.4	343	Tolland, . . . .	55	9 09.0
303	Southwick, . .	146	12 33.3	344	Egremont, . . .	92	9 05.4
304	Russell, . . . .	146	12 32.8	345	Leverett, . . . .	103	8 94.6
305	Chester, . . . .	217	12 30.2	346	Hancock, . . . .	80	8 75.0
306	Berkley, . . . .	141	12 26.5	347	Savoy, . . . . .	82	8 53.6
307	Warwick, . . .	84	12 25.9	348	Plainfield, . .	66	8 30.2
308	Truro, . . . . .	147	12 01.7	349	Washington, . .	62	8 07.9
309	Shutesbury, . .	57	11 90.7	350	Goshen, . . . .	54	6 48.1
310	Belchertown, .	420	11 90.4	351	Gosnold, . . . .	11	6 37.2
311	Leiden, . . . .	59	11 86.4	352	Mt.Wash'gton,	21	3 57.1
312	Erving, . . . .	182	11 86.0	353	Gay Head, . . .	35	2 74.2
313	Winchendon, .	752	11 76.2				

## GRADUATED TABLES—FOURTH SERIES.

## [COUNTY TABLES.]

*In which all the Towns in the respective Counties in the State are numerically arranged according to the Comparative Amounts of Money appropriated by them for the Education of Each Child included in the Average Membership of the Public Schools.*

## BARNSTABLE COUNTY.

For 1896-97.	TOWNS.	Average mem- bership of the Public Schools.	Sum appropri- ated for each child.	For 1896-97.	TOWNS.	Average mem- bership of the Public Schools.	Sum appropri- ated for each child.
1	FALMOUTH. . .	411	\$29 74.3	9	Bourne, . . .	295	\$18 45.2
2	Yarmouth, . . .	208	23 60.1	10	Dennis, . . .	404	16 41.5
3	Wellfleet, . . .	137	23 58.0	11	Harwich, . . .	307	16 28.6
4	Barnstable, . . .	677	21 14.7	12	Chatham, . . .	289	15 01.4
5	Sandwich, . . .	229	20 84.3	13	Eastham, . . .	63	14 28.5
6	Orleans, . . .	159	20 76.2	14	Provincetown, . . .	745	14 09.3
7	Brewster, . . .	128	20 06.6	15	Truro, . . .	147	12 01.7
8	Mashpee, . . .	56	19 94.9				

## BERKSHIRE COUNTY.

1	STOCKBRIDGE, . .	345	\$21 44.1	17	Tyringham, . .	48	\$13 08.7
2	Dalton, . . .	593	19 39.2	18	Peru, . . .	42	12 54.7
3	North Adams, . .	2,385	18 21.0	19	Alford, . . .	24	12 50.0
4	Gt. Barrington, . .	768	16 95.2	20	Windsor, . . .	69	11 48.2
5	Pittsfield, . . .	3,472	16 37.5	21	New Ashford, . .	19	10 52.6
6	Lee, . . .	550	16 22.0	22	Monterey, . . .	81	10 38.1
7	Lenox, . . .	509	16 00.1	23	Otis, . . .	72	10 33.5
8	Cheshire, . . .	176	15 90.9	24	Becket, . . .	135	10 26.3
9	W. Stockbridge, . .	236	15 46.6	25	N. Marlboro', . .	185	10 05.2
10	Williamstown, . .	700	15 24.0	26	Clarksburg, . .	136	9 92.9
11	Richmond, . . .	104	14 71.7	27	Sandisfield, . .	125	9 53.5
12	Lanesborough, . .	123	14 63.4	28	Egremont, . . .	92	9 05.4
13	Adams, . . .	1,699	14 27.2	29	Hancock, . . .	80	8 75.0
14	Sheffield, . . .	275	14 26.1	30	Savoy, . . .	82	8 53.6
15	Florida, . . .	73	14 18.1	31	Washington, . .	62	8 07.9
16	Hinsdale, . . .	266	13 15.7	32	Mt. Washington, .	21	3 57.1

## SCHOOL RETURNS.

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## BRISTOL COUNTY.

For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
1	TAUNTON, . .	3,821	\$21 71.0	11	Fairhaven, .	473	\$16 10.4
2	New Bedford,	6,525	21 54.7	12	Norton, . .	196	15 96.3
3	Easton, . .	842	20 67.2	13	Attleborough, .	1,521	15 93.9
4	Fall River, .	11,371	20 00.4	14	Rehoboth, .	258	15 13.3
5	Swansea, . .	209	19 67.9	15	Freetown, .	186	14 83.4
6	Dighton, . .	214	19 15.8	16	Dartmouth, .	475	14 50.5
7	No. Attleboro',	1,296	17 19.1	17	Somerset, .	335	13 34.1
8	Acushnet, .	127	16 91.6	18	Westport, .	380	13 15.7
9	Raynham, .	191	16 90.1	19	Seekonk, .	181	12 83.4
10	Mansfield, .	660	16 77.7	20	Berkley, .	141	12 26.5

## DUKES COUNTY.

1	TISBURY, . .	120	\$18 88.3	5	Edgartown, .	143	\$12 55.9
2	Chilmark, .	23	15 98.6	6	Gosnold, . .	11	6 37.2
3	West Tisbury,	49	14 79.5	7	Gay Head, .	35	2 74.2
4	Cottage City, .	182	13 71.4				

## ESSEX COUNTY.

1	NAHANT, . .	114	\$38 65.1	19	Saugus, . .	811	\$16 09.6
2	Salem, . .	3,831	24 08.8	20	Amesbury, .	1,054	16 07.2
3	Topsfield, .	116	23 85.7	21	Newburyport, .	1,573	16 02.2
4	Haverhill, .	3,579	23 28.4	22	Gloucester, .	3,929	15 82.3
5	Manchester, .	293	22 82.4	23	Lynnfield, .	125	15 75.9
6	Swampscott, .	526	21 71.9	24	Danvers, . .	1,369	15 56.0
7	Lawrence, .	5,889	20 98.5	25	Middleton, .	111	15 41.1
8	Lynn, . .	9,184	20 29.6	26	Ipswich, . .	697	14 77.1
9	Merrimac, .	382	20 22.0	27	Wenham, . .	108	14 57.5
10	Peabody, . .	1,526	19 14.6	28	W. Newbury, .	249	14 46.1
11	No. Andover, .	700	18 46.8	29	Essex, . .	247	14 17.0
12	Andover, . .	931	18 44.4	30	Rowley, . .	164	14 03.4
13	Georgetown, .	317	18 43.7	31	Hamilton, .	181	13 85.6
14	Boxford, . .	87	18 39.0	32	Newbury, . .	237	13 47.9
15	Bradford, . .	859	18 12.1	33	Groveland, .	419	13 22.1
16	Methuen, . .	955	16 66.4	34	Salisbury, .	195	12 80.7
17	Beverly, . .	1,848	16 30.2	35	Rockport, .	714	10 92.3
18	Marblehead, .	1,209	16 19.7				

## FRANKLIN COUNTY.

For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
1	DEERFIELD, .	248	\$24 19.3	14	Monroe, .	38	\$13 52.3
2	Sunderland, .	80	24 06.2	15	New Salem, .	118	13 47.3
3	Bernardston, .	95	19 08.2	16	Warwick, .	84	12 25.9
4	Montague, .	1,017	16 70.1	17	Shutesbury, .	57	11 90.7
5	Gill, .	111	16 47.2	18	Leyden, .	59	11 86.4
6	Ashfield, .	143	16 22.6	19	Erving, .	182	11 86.0
7	Greenfield, .	1,256	16 20.8	20	Buckland, .	248	11 73.9
8	Shelburne, .	265	16 07.8	21	Colrain, .	260	11 07.3
9	Northfield, .	200	16 01.6	22	Hawley, .	70	11 06.0
10	Whately, .	82	15 85.3	23	Charlemont, .	143	11 03.2
11	Conway, .	206	15 53.3	24	Heath, .	93	10 16.8
12	Orange, .	994	15 25.3	25	Wendell, .	80	9 20.2
13	Rowe, .	58	14 86.0	26	Leverett, .	103	8 94.6

## HAMPDEN COUNTY.

1	SPRINGFIELD, .	7,267	\$25 48.0	13	Chicopee, .	1,746	\$15 39.9
2	Holyoke, .	4,400	24 59.6	14	Montgomery, .	43	14 89.9
3	Longmeadow, .	87	22 98.8	15	Agawam, .	382	14 82.5
4	Westfield, .	1,620	20 27.4	16	E L'gmeadow, .	287	13 39.4
5	W. Springfield, .	1,269	18 31.5	17	Wales, .	126	12 73.7
6	Palmer, .	981	17 78.8	18	Granville, .	176	12 51.3
7	Monson, .	581	17 39.5	19	Southwick, .	146	12 33.3
8	Brimfield, .	108	17 35.5	20	Russell, .	146	12 32.8
9	Ludlow, .	324	16 97.4	21	Chester, .	217	12 30.2
10	Wilbraham, .	204	16 26.4	22	Holland, .	22	11 17.0
11	Hampden, .	84	15 47.6	23	Tolland, .	55	9 09.0
12	Blandford, .	141	15 43.9				

## HAMPSHIRE COUNTY.

1	WARE, .	978	\$20 75.1	13	Belchertown, .	420	\$11 90.4
2	Northampton, .	2,140	20 00.0	14	Chesterfield, .	84	11 38.9
3	Amherst, .	673	18 63.9	15	Greenwich, .	68	11 02.9
4	Easthampton, .	840	16 56.9	16	Westhampton, .	83	10 84.3
5	South Hadley, .	789	14 86.7	17	Williamsburg, .	387	10 71.7
6	Pelham, .	65	14 85.1	18	Worthington, .	125	9 95.4
7	Hatfield, .	197	14 68.9	19	Middlefield, .	84	9 59.5
8	Granby, .	125	14 40.0	20	Huntington, .	269	9 57.2
9	Cummington, .	108	13 87.5	21	Southampton, .	171	9 28.1
10	Hadley, .	251	13 14.7	22	Plainfield, .	66	8 30.2
11	Prescott, .	58	13 04.6	23	Goshen, .	54	6 48.1
12	Enfield, .	196	12 75.5				

## SCHOOL RETURNS.

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## MIDDLESEX COUNTY.

For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
1	TYNGSBOROUGH, .	83	\$42 48.2	28	Melrose, .	2,154	\$19 58.9
2	Weston, .	231	42 44.0	29	Pepperell, .	570	19 54.3
3	Newton, .	4,283	31 82.1	30	Frammingham, .	1,884	19 07.2
4	Burlington, .	56	30 10.4	31	Townsend, .	264	18 93.9
5	Sudbury, .	179	29 73.6	32	Acton, .	262	18 92.1
6	Lexington, .	522	28 80.2	33	Reading, .	782	18 76.2
7	Watertown, .	990	26 95.9	34	Hopkinton, .	512	18 43.3
8	Lincoln, .	150	26 94.7	35	Woburn, .	2,438	18 27.3
9	Waltham, .	2,536	26 90.6	36	Stoneham, .	962	17 98.3
10	Sherborn, .	144	26 55.8	37	Hudson, .	872	17 25.1
11	Littleton, .	186	25 92.3	38	Tewksbury, .	374	17 22.6
12	Belmont, .	446	25 20.2	39	Everett, .	3,608	17 18.4
13	Dunstable, .	55	24 19.0	40	Natick, .	1,650	16 89.7
14	Lowell, .	10,041	23 99.0	41	Westford, .	428	16 58.8
15	Medford, .	2,651	23 67.0	42	Billerica, .	436	16 28.4
16	Concord, .	771	23 62.9	43	Wakefield, .	1,606	15 99.0
17	Cambridge, .	11,957	23 50.8	44	Ashby, .	126	15 85.0
18	No. Reading, .	131	22 85.4	45	Marlborough, .	2,519	15 81.4
19	Arlington, .	1,176	22 83.4	46	Ashland, .	356	15 44.9
20	Somerville, .	8,077	22 61.2	47	Maynard, .	559	15 40.5
21	Malden, .	4,715	22 54.0	48	Wilmington, .	242	14 98.0
22	Groton, .	366	22 21.8	49	Chelmsford, .	513	14 97.0
23	Wayland, .	384	21 22.6	50	Carlisle, .	70	14 28.5
24	Dracut, .	376	21 21.4	51	Boxborough, .	58	13 79.3
25	Bedford, .	173	20 75.2	52	Stow, .	124	13 52.0
26	Winchester, .	1,289	19 77.9	53	Ayer, .	408	13 29.2
27	Holliston, .	438	19 70.2	54	Shirley, .	203	12 45.5

## NANTUCKET COUNTY.

NANTUCKET, .	300	\$17 88.1
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## NORFOLK COUNTY.

1	BROOKLINE, .	2,635	\$39 18.4	9	Walpole, .	476	\$21 33.8
2	Milton, .	1,015	37 54.8	10	Quincy, .	3,788	19 53.4
3	Wellesley, .	559	30 96.3	11	Franklin, .	586	19 22.0
4	Cohasset, .	388	30 44.2	12	Foxborough, .	459	19 16.7
5	Canton, .	531	26 91.9	13	Weymouth, .	1,974	19 07.5
6	Dover, .	83	25 69.6	14	Wrentham, .	482	18 87.1
7	Dedham, .	1,320	25 20.2	15	Sharon, .	202	18 57.9
8	Hyde Park, .	1,614	22 19.7	16	Millis, .	151	18 38.5

## NORFOLK COUNTY — CONCLUDED.

For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
17	Holbrook, .	424	\$18 27.1	23	Bellingham, .	253	\$16 21.3
18	Norfolk, .	143	17 89.6	24	Randolph, .	637	16 16.5
19	Medfield, .	247	17 70.0	25	Stoughton, .	674	15 95.7
20	Needham, .	632	17 69.2	26	Medway, .	503	15 90.4
21	Braintree, .	967	16 81.0	27	Avon, .	262	15 25.1
22	Norwood, .	922	16 45.3				

## PLYMOUTH COUNTY.

1	HULL, .	114	\$61 53.5	15	Marshfield, .	248	\$16 55.7
2	Hingham, .	698	22 85.2	16	Scituate, .	354	16 14.9
3	Mattapoisett, .	138	22 59.1	17	Marion, .	133	16 05.5
4	Abington, .	679	20 95.4	18	Wareham, .	500	15 84.6
5	Bridgewater, .	599	20 62.4	19	Hanover, .	374	15 71.2
6	Plymouth, .	1,322	19 48.4	20	W.Bridgewater, .	247	15 25.1
7	Brockton, .	5,352	19 08.7	21	Plympton, .	58	15 23.0
8	E.Bridgewater, .	435	18 68.8	22	Norwell, .	262	14 88.9
9	Kingston, .	291	18 53.1	23	Hanson, .	180	13 44.4
10	Whitman, .	947	18 40.7	24	Lakeville, .	112	13 39.2
11	Middleboro', .	948	18 30.3	25	Pembroke, .	180	13 29.4
12	Halifax, .	66	18 18.1	26	Carver, .	147	12 59.5
13	Rockland, .	966	17 06.4	27	Rochester, .	122	9 88.6
14	Duxbury, .	254	16 78.9				

## SUFFOLK COUNTY.

1	BOSTON, .	70,192	\$27 35.0	3	Chelsca, .	4,456	\$18 46.3
2	Winthrop, .	659	22 93.6	4	Revere, .	1,413	17 39.4

## WORCESTER COUNTY.

1	LANCASTER, .	284	\$28 18.7	11	Barre, .	312	\$19 88.1
2	Petersham, .	107	27 49.7	12	Webster, .	588	19 74.2
3	Hardwick, .	325	23 56.7	13	Phillipston, .	57	19 29.8
4	Worcester, .	15,287	23 54.1	14	Spencer, .	1,180	19 19.4
5	Fitchburg, .	3,877	23 29.6	15	Grafton, .	772	19 13.8
6	Hopedale, .	227	23 01.5	16	Uxbridge, .	520	18 25.5
7	Sterling, .	187	21 39.1	17	Athol, .	936	18 11.1
8	New Braintree, .	81	21 18.5	18	Shrewsbury, .	248	18 04.4
9	Harvard, .	150	21 08.6	19	Leicester, .	529	17 86.7
10	Southborough, .	290	20 55.7	20	Warren, .	805	17 81.5



## SCHOOL RETURNS.

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## WORCESTER COUNTY — CONCLUDED.

For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.	For 1896-97.	TOWNS.	Average membership of the Public Schools.	Sum appropriated for each child.
21	No. Brookfield,	527	\$17 71.4	41	Sturbridge, .	308	\$14 95.4
22	Dudley, .	344	17 60.1	42	Westminster, .	236	14 67.5
23	Upton, .	267	17 37.7	43	Brookfield, .	548	14 62.8
24	Hubbardston, .	178	17 05.0	44	Templeton, .	445	14 52.0
25	Westborough, .	706	16 81.6	45	Princeton, .	119	14 46.5
26	Oxford, .	396	16 80.3	46	Auburn, .	256	14 13.3
27	Leominster, .	1,545	16 76.4	47	Northborough, .	355	14 08.4
28	Lunenburg, .	178	16 76.5	48	Charlton, .	277	14 06.4
29	Holden, .	429	16 67.8	49	Paxton, .	56	13 94.6
30	W. Brookfield, .	200	16 67.5	50	Bolton, .	122	13 47.2
31	Southbridge, .	861	16 47.7	51	Oakham, .	102	13 44.8
32	Clinton, .	1,704	16 32.3	52	Sutton, .	428	13 38.2
33	W. Boylston, .	506	16 20.5	53	Millbury, .	779	13 37.5
34	Blackstone, .	700	15 97.7	54	Ashburnham, .	391	12 40.4
35	Mendon, .	139	15 89.3	55	Winchendon, .	752	11 76.2
36	Milford, .	1,320	15 84.9	56	Rutland, .	185	11 58.3
37	Gardner, .	1,560	15 56.6	57	Royalston, .	122	10 82.4
38	Northbridge, .	1,118	15 44.0	58	Berlin, .	121	10 55.1
39	Boylston, .	108	15 27.7	59	Dana, .	87	10 34.4
40	Douglas, .	341	15 09.6				

## GRADUATED TABLES — FOURTH SERIES.

*Showing the Comparative Amount of Money, appropriated by the different Counties in the State for the Education of Each Child included in the Average Membership of the Public Schools.*

For 1896-97.	COUNTIES.	Average membership of the Public Schools.	Sum appropriated for each child.
1	SUFFOLK, . . . . .	76,720	\$26 61.3
2	Norfolk, . . . . .	21,927	23 16.4
3	Middlesex, . . . . .	76,386	22 13.3
4	Hampden, . . . . .	20,412	21 60.8
5	Bristol, . . . . .	29,402	19 63.9
6	Worcester, . . . . .	45,578	19 54.9
7	Essex, . . . . .	44,529	19 12.7
8	Barnstable, . . . . .	4,255	19 04.1
9	Plymouth, . . . . .	15,726	18 72.7
10	Nantucket, . . . . .	300	17 88.1
11	Hampshire, . . . . .	8,231	16 26.3
12	Berkshire, . . . . .	13,547	15 87.3.
13	Franklin, . . . . .	6,290	15 36.3
14	Dukes, . . . . .	563	13 88.4
STATE, . . . . .		363,866	\$21 53.5

## GRADUATED TABLES—FOURTH SERIES.

*Showing the Comparative Amount of Money, including Voluntary Contributions, appropriated by the different Counties in the State for the Education of Each Child included in the Average Membership of the Public Schools.*

For 1896-97.	COUNTIES.	Sum appropriated for each child.
1	SUFFOLK, . . . . .	\$26 61.3
2	Norfolk, . . . . .	23 24.0
3	Middlesex, . . . . .	22 14.6
4	Hampden, . . . . .	21 64.5
5	Bristol, . . . . .	19 70.7
6	Worcester, . . . . .	19 60.1
7	Essex, . . . . .	19 12.8
8	Barnstable, . . . . .	19 04.1
9	Plymouth, . . . . .	18 74.4
10	Nantucket, . . . . .	17 88.1
11	Hampshire, . . . . .	16 30.4
12	Berkshire, . . . . .	15 90.2
13	Franklin, . . . . .	15 37.0
14	Dukes, . . . . .	13 88.4
STATE, . . . . .		\$21 55.9



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